FOREWORD

I am sure the readers will welcome this publication.

It brings together, for the first time, the basic material that has so far been separately available for the two—the Travancore-Cochin and the Malabar—parts of Kerala and thus helps us to see Kerala as a whole.

It also collects the available information regarding the working of the First and Second Five Year Plans. This information, together with the "Introduction" by the Secretary for Planning, will help the reader to understand the genesis and implications of the Kerala Plan.

I hope that our people will make the utmost possible use of this publication, and that well-informed public discussions will help the formulation of a much better and more useful Third Five Year Plan.

E. M. S. Namboodiripad

3rd July 1958. *Chief Minister, Kerala.*

SECOND FIVE YEAR PLAN—KERALA

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PART I

INTRODUCTION

1. KERALA AT A GLANCE.

Kerala:

Kerala State has been formed by the union of the major part of the old Travancore-Cochin State (the taluks of Thovala, Agastheeswaram, Kalkulam, Vilavancode and a part of Shencottah being transferred to the Madras State) and the Malabar district and Kasaragod taluk of the old Madras State It stretches along the shores of the Arabian Sea for a distance of about 360 miles with Mysore State on the north and north-east and Madras State on the east and south. The breadth of the State varies from 20 miles in the extreme north and south to over 75 miles in the middle. The area of the State is nearly 15,000 square miles.

Physical Features:

2 Kerala is a land of mountains. Together with Konkan, the northern portion of the west coast of India with which it has much in common both geographically and climatically, Kerala forms a distinct region, marked off from the adjoining areas by the Western Ghats which run parallel to the sea and form an almost continuous mountain wall on the eastern side The Western Ghats dominate the topography of the country The coast contains a narrow strip of land from the extreme south up to Kozhikode North of Kozhikode, the coast line is fringed with low cliffs alternating with stretches of sand A few miles to the interior, the scene changes and the country swells towards the barrier of the Ghats at first in ranges of low red laterite hills interspersed with paddy fields and cocoanut gardens and later in the long spurs, deep ravines and thick jungles that mark the beginning of the main Western Ghats The ghats maintain an average elevation of 3,000 feet, soaring up into peaks 6,000 to 8,000 feet high in certain places The Anamudi peak in Kottayam district rises up to a height of 8,837 feet and forms the highest point in India south of the Himalayas. Though pierced by a number of passes, the chief of which is the 25 miles wide Palghat gap, the Western Ghats protect Kerala from the dry desiccating winds of the Eastern Plains and help to ensure a steady rainfall during the south-west monsoon Detached from the main range, there are several outlying hills which break the monotony of the undulating laterite downs of the low country.

3. Based upon physical features, the State falls into three natural divisions—the Lowland bordering the sea, the Midland consisting of the undulating country east of the lowlands and the forest clad Highland on the extreme east.

Climate:

4. The diversity of the physical features results in a corresponding diversity of climate. In some of the mountain peaks pinching cold is experienced, lower down at an elevation of three to five thousand feet, one meets with a bracing cold climate In the plains the climate is generally hot Though the mean maximum temperature is only around 90°F it is oppressive in the moisture laden atmosphere of the plains. Humidity is very high and rises to about 90 per cent during the south-west monsoon. The annual variation of temperature is small, the diurnal range is only about 10°F.

Rainfall:

5 The south-west monsoon starts towards the end of May or the beginning of June heralded by thunder storms and holds sway till September when the rains fade out October brings in the north-east monsoon Dry weather sets in by the end of December January and February are the driest and coolest months of the year March, April and May are generally very hot Most parts of Kerala get fairly heavy rainfall The highest rainfall occurs on the High Range in Kottayam district where it amounts to over 200 inches. On the coast, it generally decreases as one goes south Thus, while Trivandrum has an average annual rainfall of 64 inches, Kozhikode gets 118 inches Though variations in rainfall do occur, complete failure of rains is almost unknown and floods cause more destruction to crops than drought

Rivers:

6 The heavy annual rain fall and the broken nature of the country have resulted in a large number of rivers and streams. Most of them flow down to the Arabian Sea or into the backwaters along the coast As the Western Ghats are nowhere more than 75 miles from the sea, these rivers are comparatively short. The important rivers are (from north to south) Valarpattanam (70 miles), Chaliar (96 miles), Kadalundi (75 miles); Bharathapuzha (166 miles), Chalakkudy (70 miles), Periyar (142 miles); Pampa (90 miles); Achankovil (70 miles), and Kallada (70 miles).

Backwaters.

7 The backwaters are a peculiar feature of Kerala The coast line is generally fringed with lakes or backwaters and canals have been dug to connect them so that there is an uninterrupted inland water communication from Trivandrum to Tirur, a distance of 220 miles The Vembanad lake stretching from Alleppey to Cochin is the biggest water basin and is 79 square miles in area

Minerals.

8 Several valuable minerals occur in many parts of the State. The beach sands in Quilon District are rich in heavy minerals like monozite, ilmenite, rutile, zircon and sillimanite. China

Clay or Kaolin suitable for the manufacture of porcelain is found in many parts of the State. An inferior type of clay occurs in many places and is being used for the manufacture of tiles and bricks. Deposits of graphite also occur in many parts of the State The backwaters of the coastal areas contain large quantities of lime shell which are being continuously replenished from time to time This source of calcium carbonate is being used for the manufacture of cement.

9 Water in the rivers is the most important of the resources in the State. The steep falls at the source of some of the rivers have been harnessed to generate electricity

Forests:

10 The State is very rich in its forests. These consist of deciduous sub-tropical evergreen, evergreen tropical rain forests and deciduous monsoon forests The foot hills of the Western Ghats contain a number of scrub jungles and in the interior of the ghats there are some luxuriant sholas Of the total geographical area of the State 25·8 per cent is under forests In this matter, the State ranks second among the States in India, only Assam having a larger percentage of its area under forests The Kerala forests are comparatively very rich. The revenue from the forests is about Rs 10 per acre in the State while it is only Rs 3 in India as a whole As a result of large-scale clearing of forests in recent years, however, forest wealth of the State has been considerably depleted

Soils·

11. The soils in the three natural divisions generally fall under three types In the highland region it is clay-loam and rests on a bed of rocks; it is black in colour and rich in organic matter nitrogen and potash and is slightly acidic In the midland, the soil is a red ferruginous loam of lateritic origin with an admixture of clay and sand. The coastal strip is sandy with a lateritic foundation The light sandy soils of the coast are alluvial deposits of sand slightly impregnated with silt found in shores of backwaters and near the mouths of rivers In the midlands and lowlands, the soils are generally deficient in nitrogen, phosphorous and in many cases potash also Lime is also deficient in many parts of the State

Population

12 The following table shows the growth of the population of Kerala during the last few decades.

Year	Area (Square Miles)	Population (Lakhs)			No of Women per 1000 Men	Density persons per Sq. Mile	Land Per Capita (Acres)
		Total	Males	Females			
1901	14,985	63·38	31 66	31·72	1,002	423	1 51
1911	14,985	70 15	35 48	35·67	1,00)	468	1 37
1921	14,985	78·13	38 91	39 22	1,008	521	1·23
1931	14,985	95·02	47·06	47·96	1,019	634	1 01
1941	14,985	110·37	54 53	55 84	1,024	737	0 87
1951	14,985	135·56	66 97	68·59	1,024	905	0 71
1957	14,985	150·00	74 00	76 00	1,027	1,001	0 64

13 With less than 15,000 sq. miles of land, Kerala is the smallest State in India, but it has a large population of 150 lakhs. At present, one out of every twenty-five Indians is a citizen of Kerala. There is no other part of India where the density of population is as high as in this State. Based on the total area there are more than thousand persons to the square mile There are 1,027 females for every 1,000 males

14 The rate of growth of population in the State is very high. During the decade ending 1951, the population has increased by 22·8 per cent This rate of growth is one of the higest in the world

15. About 13 1 per cent of the population in Kerala live in towns while the remaining 86 9 per cent reside in villages But, the village system obtaining in the State is different from that in most other States in India Kerala is a land of detached homesteads picturesquely scattered throughout the occupied area and surrounded by gardens of lush vegetation and evergreen trees The density of population in most of the towns is not very much higher than that in some villages In fact, there are some villages where the density of population is higher than in neighbouring towns There are only 13 towns in the State with a population of more than 25,000 The sub-joined table gives the area, population, etc, of these towns according to the 1951 census.

Municipal Towns having Population above 25 000.

Municipal Towns	Area in Square Miles	Population	Density per Sq mile	No. of dwelling houses	Average No of Inmates per house
1 Trivandrum	17 00	1,86,931	10,996	25.232	7 41
2. Quilon	6 15	66,126	10.752	10,506	6·29
3 Alleppey	12 50	1,16,278	9,302	17,318	6·71
4 Kottayam	6 25	44,204	7,073	6,449	6 85
5 Changanacherry	5 50	36 289	6 598	5,024	7 22
6 Mattancherry	2 69	73,904	27,474	8,753	8 44
7 Ernakulam	3 27	62,283	19,047	7,905	7 88
8. Trichur	4 78	69,515	14,543	9,621	7 23
9. Palghat	10·27	69,504	6,768	11,464	6 06
10 Kozhicode	11 18	1,58,724	14,197	25,799	6 15
11 Cannanore	4 88	42,431	8 695	6,352	6 68
12. Tellicherry	3 00	40,040	13,347	5,266	7 60
13 Fort Cochin	1 01	29,881	29,585	5,228	5 72

Age Distribution

16 The biological fact of age has considerable social significance, for in any society there is a spontaneous grouping by age, growing out of the common capabilities and limitations of people at various stages in the physical life cycle The distribution of the population in Kerala in broad age groups is given below.

Age group	*No. of persons (in lakhs)*	*Percentage to total*
All Ages	150 00	100·0
Below 5 years	21·45	14 3
Between 5 and 15 years	36·45	24·3
Between 15 and 25 years	30 75	20 5
Between 25 and 35 years	21 15	14 1
Between 35 and 55 years	28·05	18 7
Above 55 years	12 15	8 1

17 Out of every 100 persons in the State, 39 are below 15 years of age, 53 are in the ages 15 to 55 and 8 are above 55 years of age The large proportion of children in the population indicates the high rate of population growth There are nearly 80 lakhs of persons in the State between the ages 15 and 55 and the harnessing of this tremendous man-power for productive purposes is the pressing problem in the State

Livelihood Pattern

18 The subjoined table gives the classification of the population according to the livelihood class to which they belong and according to the economic status

No of persons in lakhs

Livelihood Class	Males		Females		Total		Percentage to total population
	Self-supporting	Total	Self-supporting	Total	Self-supporting	Total	
1 All Classes	31 89	73·98	9 49	76 02	41 38	150 00	100 00
2. Agricultural	15 81	39 37	5 18	41 03	20 99	80 40	53 60
3. Cultivation of owned land	5 26	14 00	1 27	14 40	6 53	28 40	18 93
4 Cultivation of unowned land	3 22	9 00	0 56	9 12	3 78	18 12	12 08
5 Agrl. Labour	6 99	15 35	3·02	16 24	10 01	31 59	21 06
6 Agrl Rentiers, Pensioners	0 34	1·02	0 33	1 28	0 67	2 30	1·53
7. Non-Agricultural	16 08	34·60	4·31	35 00	20 39	69 60	46 40
8. Production other than cultivation	6 99	14 00	2 14	14·25	9 13	28 25	18 83
9 Commerce	2 54	5 96	0 19	5 70	2 73	11 66	7 77
10 Transport	1 20	2 45	0 06	2 22	1 26	4 67	3 11
11 Other Services	5 35	12·20	1·92	12 82	7 27	25 02	16 68

19 53 6 per cent of the total population depend on agriculture for their livelihood. Agricultural labour constitutes the most numerous single occupation with 21·1 per cent of the total and 39 3 per cent of the total agricultural classes. In all the occupations except Commerce and Transport, women outnumber men. Among those who depend on agriculture for their livelihood 17 5 per cent have non-agricultural subsidiary occupations and out of those belonging to non-agricultural classes 17 2 per cent have agriculture as a subsidiary source of income Thus only 44·2 per cent and 38 4 per cent of the total population subsist entirely on agricultural and non-agricultural occupations respectively. Though 46 per cent of the population have been returned as dependent on non-agriculture for their livelihood, it should not be inferred that the State has reached a high level of industrialisation. In fact, the large-scale industries in the State are few and absorb only a very small section of the population Most of the people are engaged in low remunerative pursuits that require very little capital

20. The burden of dependency on the earners in the families is very great. For the population as a whole, for every 100 persons 28 are self-supporting, 6 are earning dependents and 66 are non-earning dependents Among the males 43 0 per cent are self-supporting persons, 4 8 per cent are earning dependents and the remaining 52 2 per cent are non-earning dependents. Similarly among the females 12 5 per cent are self-supporting, 7 1 per cent are earning dependents and 80 4 per cent are non-earning dependents Assuming that an earning dependent contributes half as much as a self-supporting person for the maintenance of the family, it is seen that for every self-supporting person there are on an average 2·3 dependents The burden of dependency varies considerably among the livelihood classes It is highest among the cultivators of unowned land and cultivators of owned land (3 1 and 3 0 respectively) and is lowest among agricultural labourers (1·8)

Language and Religion.

21 Nearly 90 per cent of the population have Malayalam as their mother-tongue. Tamil is spoken by 9 per cent and the remaining 1 per cent speak other languages In respect of religion 61 per cent are Hindus, 22 per cent are Christians and 16 per cent are Muslims Nearly 9 per cent of the total population belong to scheduled castes and scheduled tribes

22. Planning, so far as both the Central and the State Governments are concerned, is a comparatively new concept Both the Central and State Governments are relatively new to Planning Planning for economic development of an under-developed country whose economy is at subsistence level, so as to raise the standard of income of the people perceptibly within a limited period of time, is a stupendous task The complications of Planning in a democratic and federal set-up with a socialistic pattern as the ultimate aim are far greater than they can be in any other set-up

23 Our introduction to Planning was the First Five Year Plan of 1951-56 In this period Travancore-Cochin was a separate State and extended to Cape Comorin and Shencottah The Malabar area formed part of Madras State. The First Five Year Plan of Travancore-Cochin or of the Malabar area in Madras could hardly be called a Plan The First Five Year Plan was only a conglomorate of schemes, mostly a list of schemes in execution in 1951-52 when the Plan was drawn up There was no attempt to relate the so-called Plan to the basic economic needs of the State taken as a whole The Plan, so far as it related to Kerala, was lopsided in that certain sectors received considerable attention, while other vital sectors were completely neglected because their development had not been initiated at the time the Plan was drawn up

24 In terms of money, the First Five Year Plan of Travancore-Cochin State represented an outlay of Rs 30 crores in the State Sector divided as follows :—

Head of Development.		*Rs. in crores*
Agriculture and Rural Development	..	5.70
Major Irrigation and Power Projects	.	17.63
Industries	.	1 12
Transport	.	2 58
Social Services		3.00
Total		30·03

25 The main physical achievements of the First Five Year Plan were confined to some Major Irrigation and Power Projects. These were :—

Major Irrigation Projects

1. Kodayar Extension Project (Perinchani) — (completed; now Madras State)
2. Kuttanad Development Scheme—Spill-way at Thottappally .. (completed)
3. Malampuzha Project — (completed—Dam and L. B. C.)

4.	Chalakkudy 1st Stage	..	(95% completed)
5.	Peechi	..	(95% completed)
6	Mangalam Project		(95% completed)
7.	Walayar Reservoir Project	..	(85% completed)
8	Neyyar First Stage		(75% completed)
9.	Vazhani Scheme	.	(65% completed)
	Power Projects		
1	Pallivasal H. E. Scheme (2nd stage)		(97% completed)
2	Sengulam H E Project	..	(completed)
3	Poringalkuthu H. E. Scheme	..	(almost completed)
4	Neriamangalam H. E Scheme	..	(commenced)

26 Besides these the other main achievements were the continuation of the Grow-more Food Drive at a reduced pitch, the initiation of the Coir Development Scheme and the starting of the Medical College at Trivandrum

27 Though the First Five Year Plan was a disorganised attempt at development, it gave the State considerable experience of Planning. It high-lighted the weaknesses of the developmental programme of Government and of its organisation It helped in the setting up of a machinery for Planning and succeeded in creating Plan-consciousness not only in the Government organisation, but also among the public and its leaders

28 The Second Five Year Plan of Kerala may be said to take the State a step further in its efforts at Planning In the initial formulation of this Plan a considerable degree of association of the people through Panchayats, Village Development Councils, Taluk Councils and District Councils took place Though the proposals which originated from people's organisations (as distinct from those which originated from the experts) are not exhibited separately in the Plan document, it has to be remembered that a good many of these have been merged in the Plan as it now stands In fixing the size of the Plan, it has been recognised both by the State and the Centre that only a concentrated outlay of resources can produce any visible results The capacity of the State and the Centre have therefore been stretched to the utmost, and a Plan of Rs 87·0 crores fixed upon, as against an outlay of Rs 30 crores in the First Plan. No doubt, it is felt that even this outlay is too limited from the point of view of the State's requirements, especially the immensity of its problems of unemployment and food deficit But it has also been realised that resources and implementing capacity cannot be stretched in the short run further than is attempted in this Plan It has also to be remembered that the State Plan will be supplemented in its developmental efforts by Central Plans executed in the State and by the Plans of the Private Sector No reliable estimate of these outlays, however, is available.

29. Again, the available resources have been apportioned more rationally as between various sectors, and a much larger number of schemes covering a wider range has been approved than in the First Plan. It has, however, not been possible to keep down outlay in the so-called unproductive services and apply the consequent savings to productive services; because there has not yet been sufficient education of the public mind about the place of productive programmes in our immediate developmental effort.

30. The outlay in the Second Five Year Plan has been split between the various Major and Minor Heads of Development as follows: —

		(Rs. in lakhs)
I. Agriculture and Community Development:		
(A) Agricultural Programme.		
1 Agricultural Production	..	249·59
2. Minor Irrigation Projects	..	236·68
3. Animal Husbandry	..	112·16
4 Forest	..	128·24
5 Soil Conservation		25·50
6. Fisheries	..	93·37
7. Co-operation	..	120 99
8. Agricultural Miscellaneous	..	
(a) Agricultural Statistics	..	8·99
(b) Colonisation	..	58·76
(B) N. E. S. & Community Projects	..	547·84
Total—I.	..	1582·12
II. Irrigation and Power.		
1. Irrigation	..	863·48
2. Power	..	2345 48
Total—II.	..	3208 96
III. Industry and Mining:		
1. Major Industries (Private Sector)	..	23·75
2. Major Industries (Public Sector)	..	30·53
3. Industrial Estates	..	81 95
4. Small Scale Industries	.	178·38
5. Handloom	..	160·00
6. Khadi & Village Industries		9 81
7. Handicrafts	..	23·78
8. Sericulture	..	5·13
9. Rural Industrialisation	..	20·65
10. Coir Development	..	150·00
Total—III.	..	683·98

3-1305

IV. Transport and Communications:

		(Rs. in lakhs).
1. Roads and Bridges:		
(a) Roads, Minor bridges and Culverts	..	214·63
(b) Village Roads	..	70·14
(c) Major Bridges	..	193 21
2. Road Transport	..	66·50
3. Tourism	..	12·80
Total—IV	..	557·28

V. Social Services:

1. Education	..	1033·42
2. Health	..	847·74
3. Housing	..	206 53
4. Harijan Welfare	..	220·56
5. Social Welfare	..	30 49
6. Labour and Labour Welfare	..	42 44
Total—V	..	2381·18

VI. Miscellaneous:

1 Publicity	.	9 84
2 Planning Statistics	..	12 31
3. Local Bodies and Urban Development	..	74·65
4. Museums and Zoos	..	3 00
5. Anti-sea Erosion	..	185 00
6. Planning Administration	..	2·39
Total—VI	..	287·19
Grand total	..	8700 71
		(Rs. 87 0 crores).

31. It is necessary to state how the total outlay for Kerala was fixed at Rs. 87·0 crores. The Travancore-Cochin Plan was for an amount of Rs. 72 0 crores. From this Rs. 4 crores was reduced as the share of the Kanyakumari District and Shencottah which became part of Madras State on account of States Reorganisation The residuary amount was then Rs. 68 crores Out of a Plan of Rs. 173·0 crores of the former Madras State, an amount of Rs 19 crores was set apart as the share of the Malabar area which was separated out of Madras and added to

Travancore-Cochin to form Kerala These amounts were arrived at by negotiation between the two Governments and the Planning Commission The Plan was subsequently recast to accommodate the essential requirements of the re-organised State as a whole within the approved ceiling of Rs. 87 0 crores

32. Selected physical targets of the Plan are given below:

Item.	Unit.	Plan target
1	2	3
1. Agriculture		
Foodgrains production potential ..	tons.	
(i) Major irrigation .		0·62 lakh
(ii) Minor irrigation (including Lift, Special and Medium Irrigation) ..		0·20 lakh
(iii) Manures & Fertilizers		1 43 lakhs
(iv) Improved seeds ..		0·29 lakh
(v) Miscellaneous ..		0·95 lakh
Total ..		3 49 lakhs
Minor Irrigation (Panchayat) Works .	Number	810
Area to be irrigated ..	Acres	0·42 lakh
Seed farms ..	Number	9
Manures		
(i) Urban compost .	Tons	1·5 lakhs
(ii) Rural compost		4·5 lakhs
(iii) Green manures ..		250 tons
Fertilisers		
(i) Ammonium sulphate ..	Tons	0·35 lakh
(ii) Super-phosphate .		0·06 lakh
(iii) Bonemeal .		0 35 lakh
(iv) Others ..		0·14 lakh
Landless labour families to be settled on land by State Government ..	Number	5,000

1	2	3
2. Animal Husbandry.		
1. New key village centres ...	Number	8
2. Urban Artificial Insemination Centre ..	..	1
3 Expansion of Palghat Artificial Insemination Centre into key village centre ..	..	1
3. Co-operation		
Large-sized co-operative societies .	Number	300
Cooperative farming societies	Number	28 *
4 C D. & N E S Blocks.		
Blocks ..	Number	110
5 Irrigation (Major & Medium).		
Additional irrigation potential		
Major Irrigation .	Acres	1 29 lakhs
Medium Do		0·91 lakh
		2·20 lakhs
6. Power		
Additional installed capacity ..	Kw	77,000
Transmission lines		
110 K V ..	Miles	276
66 K V. ..		43
Connecting up new consumers .	Number	1,05,260
Installation of street lights	..	50,595
Opening up new centres	..	1,344

* 9 farms were started in 1956-58 For 1958-59 it has since been decided to start 50 farms. The number for the remaining two years is yet to be decided.

	2	3
9. Roads.		
Roads (P. W D.)		
i. Improving and upgrading existing roads ..	Miles	639
ii. Construction of new roads .	..	196
iii. Special surfacing .	..	312
Village Roads (Panchayat) ..	..	1,500
10 Education		
Institutions		
Primary schools (New) ..	Number	184
Junior basic schools		316
Middle schools .		167
Senior basic schools .		124
High Schools		100
Higher Secondary Schools		46
Multipurpose schools (with Technical courses) ..		11
Technical Education		
Diploma ..		10
Degree .		4
Pupils.		
Primary Schools ..	Number	64,400
Junior basic schools ..		66,360
Middle Schools ..		41,750
Senior Basic Schools ..		18,450
High Schools ..		15,000
Higher Secondary Schools ..		9,200

1	2	3
10 Education—(*contd.*)		
Multipurpose schools (with Technical course) ..	Number	3,360
Technical Education		
Diploma ..		2,740
Degree ..		570
11 Health		
Number of additional beds ..		2860
For T. B ..		1,500
,, P. H. Units ..		540
,, Leprosy control ..		820
Number of family planning centres .		70
Training facilities	Number	
Lady Doctors (in D M. & C W courses) .		4
Nurses ..		675
Midwives .		702
Health Visitors ..		127
Refractionists and opticians .		10—15 a year
12 Housing		
Industrial housing ..		1324
Low income group housing ..		1161
13 Labour & Labour Welfare		
Training of craftsmen		
No. of craftsmen		1312
Training Centres (New) .		1
14 Welfare of Backward Classes		
Scheduled tribes		
Educational concessions to tribal students ..	Number	2,350
Maintenance of schools ..	..	38

1	2	3
14. Welfare of Backward Classes— (contd.)		
New schools ..	Number	15
Boarding grants ..		600
Scheduled castes.		
Schools ..	..	129
Hostels ..	..	3
Educational concessions for pupils of Lower Primary classes .		14,61,867
Boarding grants ..	..	3,987
Backward classes .		
Scholarships ..	..	2,500
Boarding grants ..	.	1,950

33 Some important individual projects (costing more than Rs. 25 lakhs) and their physical target are listed below :—

	Scheme	*Physical target*
I. Agriculture & Community Development.		
A Agricultural Programme.		
1	Agricultural College & Research Institute	80 students per year
Animal Husbandry		
2	Veterinary College	One College
II. Irrigation & Power		
3	Neyyar 1st Stage (Spill-over)	15000 acres to be benefited
4.	Vazhani (Spill-over)	12800 ,, ,,
5	Mangalam Project .,	6000 ,, ,,
6,	Malampuzha Project ,,	47600 ,, ,,
7	Salt Water Barrier at Tanneermukkom	121000 , ,
8	Neyyar Second stage	1910C ,, ,

9.	Chalakudy Irrigation Scheme (2nd Stage)	20250 acres to be benefited.
10.	Bhoothathankettu Scheme	63300 ,, ,,
11.	Meenkara Scheme	4100 ,, ,,
12.	Cheerakuzhi Scheme	4000 ,, ,,
13.	Pothundy Irrigation Scheme	9128 ,, ,,
14	Kattampally Project	5000 ,, ,,

Power

15.	Poringalkuthu	24400 K. W.
16	Poringalkuthu 2nd stage— Installation of 4th Gen. Set	8000 ,,
17.	Neriamangalam H E Project	16200 ,,
18	Panniar H E Scheme	15000 ,,
19.	Sholayar H. E Project	25000 ,,
20.	Pamba H E. (1st stage)	44400 ,,
21.	Investigation of River Valley Projects	..
22	Double Circuit 110 KV line from Chalakudy to Shoranur	38 Circuit miles
23	do. from Shoranur to Kuzhikode.	55 ,,
24	Single Circuit 110 KV line from Cannanore to Kasargode	52 ,,
25.	110 KV Double circuit Alwaye to Neriamangalam	45 ,,
26	110 KV Alwaye Sub Station	..

III. Industry & Mining

27	Cotton Spinning Mill	1 Mill.

V Social Services

Technical Education

28.	Engineering College at Trichur	1 College.

Medical

29.	Medical Colleges	2

Anti-sea Erosion

30.	Anti-sea Erosion	19 3/16 miles.

34. The cost of basic raw materials and machinery has gone up to some extent since the formulation of the Plan The result of this is that the achivement of all the physical targets envisaged in the Plan of Rs. 87 0 crores would now cost much more than Rs 87 0 crores In other words, if the outlay in the Plan remains at Rs. 87 0 crores, all the physical targets planned may not be realised

35 Another limiting factor affecting the implementation of the Plan is the shortage of key materials like steel and machinery, and the tight foreign exchange situation

36 Apart from these, strain on the internal resources of the Plan is also being felt The manner in which resources for the Plan have been planned is mentioned in a separate note attached to this Part Owing to the growth of non-developmental and non-Plan expenditure, want of further avenues of taxation and the tight money market (for collection of loans and savings) the strain on internal resources too has become more and more visible as the Plan progresses. Even as we go to Press, a re-classification of the Plan into Parts A & B to match available or foreseeable resources is being attempted If large internal resources cannot be mustered, the Plan may have to be curtailed.

37 As against a financial target of Rs 87 0 crores the expenditure incurred in the first two years of the Plan and planned for the 3rd (current) year is as follows:—

		Rs. in crores.
Plan, 1956-61	.	87·00
Outlay, 1956-57	..	10 02
Outlay, 1957-58	..	13 76 (R E.)
Budget, 1958-59	.	15·63
Total	..	39 41
Balance outlay to be made in 1959-61	..	47 59

These figures show the rising tempo of expenditure on the Plan. In the last two years of the Plan, however, the outlay which remains to be made is quite large, necessitating larger effort both in execution and in the raising of resources.

38 There is a criticism that the outlay in the earlier years of the Plan, was not large enough Various factors have contributed to this. States' Re-organisation and frequent changes of Government are some of the factors Another important factor is the slow growth of implementing capacity As was mentioned earlier, the First Five Year Plan revealed the inadequacy of certain of our Development Departments to cope with the responsibilities thrown on them by the Plan A first attempt at strengthening the Departments was made in 1956-57 The process is growing on, but we are still far from peak efficiency. Growth in the implementing capacity of departments is a slow process.

39. It has now been realised that more radical reorganisation of the Administrative machinery as a whole is essential if a programme of the magnitude we have undertaken, is to be pushed through vigorously. Government have accordingly set up a high-powered Committee on Administrative Reforms which has almost completed its deliberation It can be confidently expected that when the recommendations of this Body are implemented, we would have travelled much nearer to the goal of efficiency and responsiveness in our administration.

40. Administrative and Advisory arrangements for the implementation and review of the Plan are as follows:

In the field the executive Departments under the charge of the Heads of Departments are responsible for the implementation of the Plan At district level the Collector has overall supervision over the working of the Plan in the District He is assisted and advised by a District Development Council consisting of selected non-official leaders and District Heads of Departments At State level, the Chief Minister is in charge of Planning The Chief Secretary is also the Development Commissioner, who co-ordinates the working of the Departments concerned with the Plan He is assisted by an Additional Development Commissioner and a small Planning Department which keeps an over-all view of the implementation of the Plan. Secretaries to Government in the respective Department are responsible for the timely implementation of the Plans of Departments in their charges.

41. At Headquarters there is a State Planning Advisory Board, consisting of leading non-officials which advise the Chief Minister on Planning This Board has also a Standing Committee.

42 Out of the Five Year Plan, annual Plans are made every year in consultation with the Planning Commission and the Central Ministries concerned. The annual Plan is incorporated in the State budget, and is broken-up further into District and Block and Taluk Plans

43 The Second Five Year Plan also provides for the preparation of the Third Five Year Plan It is expected that action will be initiated in this respect in the middle year of the Plan Planning thus becomes a continuing process, each Plan being a preparation for the next, and each scheme being a step towards the ultimate goal which the Nation has set before itself

III. RESOURCES OF THE KERALA PLAN

The total outlay under the State Plan is fixed at Rs 87 crores. This consists of the expenditure on the Schemes fully financed by the State, the expenditure on the 'Centrally Aided Schemes' (both State share and Central share) and the State share on 'Centrally Sponsored Schemes' The Central share on centrally sponsored schemes and the total expenditure on 'Central Sector Schemes' (Local Development Works, Flood Control, Inland Navigation, Ports & Harbours and Urban Water Supply and Drainage) are over and above the ceiling of Rs 87 crores.

2 For financing this Plan of Rs 87 crores, it was originally assessed that the State could muster resources to the extent of Rs 48 crores. The details of these estimates are as below

		(Rs. in crores)
Revenue Account		
1	Balance from current revenues at the 1955-56 rates of taxation	13·4
2	Additional taxation ..	8·6
3	Share in additional taxation by the Centre ..	1 4
Capital Account.		
4	Loans from the Public (gross) ..	19·0
5	Share in Small Savings .	3·8
6	Other heads on Capital account (net) ..	1 4
		47 6
		48 crores (in round figures)

3. In the above estimates, no reduction has been made for the interest payments and other service charges in respect of the new loans to be raised from the Public as well as the loans advanced by the Centre, as it was estimated that these items would be covered by the receipts accruing from Plan Schemes

4 A reassessment of resources made on the basis of actuals for 1956-57, Revised Estimate for 1957-58 and Budget Estimate for 1958-59, shows the following position in regard to the first three years of the Plan

(Rs. in crores)

Head (1)	1956-57 (Accounts) (2)	1957-58 (Revised Estimate) (3)	1958-59 (Budget Estimate) (4)
I. Revenue Account			
1. Balance from current revenue (a) ..	2 1	0·8	0 1
2 Additional taxation ..	..	1 6	3·3
3. Share in additional taxation by Centre ..	..	(b)	(b)
Total I ..	2·1	2 4	3 4
II. Capital Account			
4. Loans from the Public (Gross) ..	2 3		3·0
5. Share in Small Savings..	0 2	0 9	1 0
6. Other heads on Capital Account .	(—)2 1	(-)0 3	(—)1 1
Total II ..	0 4	0 6	2 9
III Other Items			
1 Sale of securities .	0 1	2 0	2·2
2 Net increase in floating debt ..	.	2 5	..
3. Drawings on cash balances ..	4 0	0·7	(—)0·5
Total III .	4·1	5·2	1·7
Grand Total ..	6·6	8·2	8·0

(a) "Interest payments" and other service charges in respect of new loans and loans from the Centre and "receipts from Plan Schemes".

(b) Included under "1. Balance from Current revenues."

5. From the above table, it will be seen that the State resources estimated for the First 3 Years of the Plan come to Rs. 22·8 crores. It is hoped that the State will be able to muster resources at the same level during the remaining period of the Plan, and with adequate central assistance the State will be able to achieve the targets envisaged in the Plan

6 The plan outlay (gross) for 1958-59 is estimated at Rs. 18·52 crores. This comprises the following :—

		(*Rs. in crores*)
1	Outlay on State plan schemes	15·54
2.	Central share on centrally sponsored schemes .	1·42
3.	Outlay on Central sector schemes (excluding 50% of the outlay on Local Development Works) .	1·41
4	50% outlay on Local Development Works ..	0·15
		18·52

Item 1 above will be financed from State resources estimated at Rs 8 crores (vide Col 4 of the table under paragraph 4) and the balance of Rs. 7 54 crores is to be obtained from the Government of India as assistance for the schemes Resources for items 2 and 3 above should ordinarily be forthcoming from the Central Government, which means that an amount of Rs 2 83 crores will be available to the State Government on this account For item 4, Rs 10 lakhs will be available as local contribution and Rs 5 lakhs will be met from State resources.

PART II

THE PLAN—SECTOR-WISE

CHAPTER I

SECTOR I

AGRICULTURE AND COMMUNITY DEVELOPMENT

1 AGRICULTURE

While the high density of population reveals the pressure on land in the State, the situation causes concern when the population is correlated with the land available for cultivation. The following table gives the classification in 1955-56 of the land comprising the State into various categories.

Details of utilisation	*Area in '000 acres*	*Percentage to total area*
Total	9,412	100 0
Forests	2,433	25·8
Barren and uncultivable land	497	5 3
Land put to non-agricultural uses	471	5 0
Cultivable waste lands	406	4 3
Permanent pastures and grazing lands	116	1 2
Land under miscellaneous tree crops	508	5 4
Current fallow	140	1 5
Other fallow	364	3 9
Net area sown	4,477	47 6
Area sown more than once	989	10 5
Total cropped area	5,466	58·1

2 Out of a total area of 94·12 lakhs acres in the State only 53 87 lakhs acres were available for cultivation. Of these 44·77 lakhs acres were already being cultivated leaving a margin of only 16 9 per cent as cultivable waste and fallow lands. Thus the scope for extension of area under cultivation is limited.

3 The *per capita* extent of cultivated land is only 30 cents. With the population increasing at a rapid rate the pressure on the limited supply of land is becoming acute. In 1921 the *per capita* land under cultivation in the State was about 53 cents. In 1957 it has dwindled to 30 cents.

4. The extreme pressure on land has resulted in excessive sub-division and fragmentation of holdings into uneconomic units,

The distribution of holdings according to size, in the State is given in the following table

S. No.	Grade of holdings	No of holdings in lakhs	Area in lakhs of acres	Percentage of No of holdings	Total area
1	Less than 1·00 acre	14·84	6 45	55 6	8 1
2	1·00 acre to 2 50 acres	5·63	9 11	21 1	11·4
3	2·50 ,, to 5 00 ,,	3 01	10 66	11 3	13 3
4	5 00 ,, to 7·50 ,,	1 14	6 92	4 3	8 6
5	7·50 ,, to 10 00 ,,	0 59	5 08	2 2	6 3
6	10 00 ,, to 12 50 ,,	0 37	4 09	1 4	5 1
7	12 50 ,, to 15·00 ,,	0 25	3 35	0 9	4 2
8	15 00 ,, to 17 50 ,,	0 18	2 94	0 7	3 7
9	17 50 ,, to 20 00 ,,	0 14	2 56	0 5	3 2
10	20 00 ,, to 25 00 ,,	0 16	3 46	0 6	4 3
11	Over 25 00 acres	0 39	25 40	1 4	31 8
12	Total	26 70	80 02	100 0	100 0

5 Out of the total number of 26 70 lakhs holdings 14 84 lakhs or 55 6 per cent are less than one acre in size 88 0 per cent are less than five acres Only 1 4 per cent are above 25 acres in extent Those who hold less than 1 acre, forming 55 6 per cent of all the landholders have only 8 1 per cent of the total area among them while higher up in the ladder 1 4 per cent of the holders own 31 8 per cent of the total area Nearly 50 per cent of the total land is held by a small group who form only 4 per cent of all the owners With the small average holding, complete reliance on agriculture is not possible for a good number of cultivators

6 The abundance of rain and the natural fertility of the soil have made Kerala an essentially agricultural region Diversity of crops and heterogeneity in cultivation are the key notes of agriculture in the State While the highland is mainly under plantation crops like tea, coffee, rubber and cardamom and the lowland is virtually monopolised by paddy and cocoanut the midland is under a host of major and minor crops often cultivated intermixed with one another

7 Paddy is the most extensively grown crop in the State and is the staple food of the people. It is cultivated in about 36 per cent of the total cropped area Tapioca comes next to paddy as a food crop. Among the cash crops cocoanut is the most important one. The following table gives the area, production and

value of production in 1955-56 of the important crops in the State.

	Name of crop	Area in '000 acres	Average yield per acre (lbs)	Total production ('000 tons)	Gross value of production (crores of Rs.)	Percentage to Total
1.	All crops	5,466	..	.	180·0	100·0
2	Paddy	1,954	1,559	1,358	41·4	23·0
3.	Pulses	111	343	17	0·4	0·2
4.	Tapioca	558	6,298	1,569	7·8	4·3
5.	Sugarcane	18	40,698	327	1·3	0·7
6.	Pepper	214	280	27	7·1	3·9
7.	Ginger	26	1,120	13	2·8	1 6
8.	Turmeric	11	2,850	14	1·1	0·6
9.	Sesamum	50	290	7	0·6	0·3
10	Lemongrass	35	60	1	1·7	0·9
11	Bananas	116	6,005	311	8·5	4·7
12.	Cocoanut	1,107	2,800*	310†	49 4	27 4
13	Arecanut	144	45,000*	648†	9 9	5·5
14	Cashewnut	93	1,349	56	3·8	2 1
15	Groundnut	33	950	14	0 8	0 4
16	Cotton	22	560	6	0·5	0·3
17.	Rubber	160	294	21	6·8	3 8
18	Tea	99	679	30	14·2	7·9
19	Coffee	41	164	3	1·6	0·9
20	Cardamom	69	32	1	3·0	1 7
21	Other miscellaneous crops	605	..	..	17 3	9·6

* No. of nuts. † Crores of nuts.

8 The total value of agricultural production in 1955-56 was estimated as Rs 180 crores. This gives Rs 120 as the *per capita* income from agriculture. Paddy and cocoanut which together account for 56 per cent of the total cropped area contribute 50 per cent of the total value of production while the plantation crops with 6 8 per cent of the area, contribute 7·9 per cent of the value.

9 In regard to food, the State is a deficit area. Eventhough nearly 70 per cent of the total cropped area of the State is under food crops, the State is a net importer of food materials. The average rice production in the State for the last five years was 8 24 lakh tons. The population of the State, reduced to adult equivalents, is 125 lakhs Thus the average production of rice in the State per adult per day is only 6 5 ounces. Other cereals like Jowar and Ragi are being cultivated in the State only on a very limited scale and do not fill the gap between requirements and production of food grains to any appreciable extent. Tapioca though widely used, is deficient in nutritive factors and cannot be counted as a substitute for rice. Therefore, the State has to

go a very long way in order to become self-sufficient in food. At the rate of 12 ounces per day per adult the State would require 16·5 lakhs tons of rice during 1960-61 This means that in order to become self-sufficient in food, rice production in the State should be doubled by the end of the Second Five Year Plan period.

10. Thus the Central problem of agriculture in the State can be thought of as the problem arising out of.—

i. lack of facilities for the extension of agricultural area;
ii. excessive sub-division and fragmentation of holdings;
iii. insufficiency of food production;
iv. need for maintaining a balance between food crops and cash crops and between categories of food crops and cash crops *inter se*;
v. low income from agriculture, and
vi unsteadiness of agricultural incomes

11. The problem of optimising agricultural production in the State is one of qualitative improvement of crops and quantitative increase of yield per acre and at the same time of overall decrease in cultivation costs.

Progress under First Five Year Plan.

12. It was towards achieving the purpose of strengthening the agricultural base of the economy that a large proportion of the total outlay on the First Five Year Plan Schemes was directed towards schemes under Agriculture and Community Development as well as Irrigation. Out of a total outlay of Rs 3003 lakhs on Plan Projects, that on agriculture and community development was Rs 570 lakhs, i e., almost 19% of the total Irrigation represented about 19% of the total expenditure. That the schemes for increasing production of food grains in the State during the First Five Year Plan have been fruitful to some extent is evident from the following table which shows the gross estimated increase in production of food grains assignable to different schemes.

Name of Scheme	*Gross increase in production of food grains during Plan Period (tons)*
1. Supply of improved strains of seed	54,754
2. Provision of implements	6,360
3. Land reclamation	6,176
4. Supply of manures and fertilisers	257,779
5. Other schemes	20,695
Total	345,764

Programme in the Second Five Year Plan.

13. The Second Five Year Plan for the State recognises the basic importance of agricultural programme from two aspects Firstly, it is realised that Kerala being an area deficient in food production, the deficit has to be covered as quickly as possible. Similarly it is necessary that production should be raised to meet the increasing demand for food as a result of a fast increasing population and increasing demand *per capita* arising from increasing incomes from developmental activities. In the second plan it is recognised that economic development must be balanced and for this, agricultural production must increase continuously to enable an increased tempo of development in the secondary and tertiary sectors of economic activity In this connection it has to be recognised that cash crops like cocoanut, cashew, pepper, ginger, tea, cardamom, lemongrass, etc., play a very important part in the State's economy. While they bring substantial incomes to agriculturists in the State, they also strengthen the foreign exchange position of the country. The total value of exports from the State during 1955-56 was nearly Rs. 53 crores The value of agricultural crops and products derived from these, which were exported was 90% of the total Of this, 38% was exported to hard currency areas Practically no attention has been paid in the past to the problems of cash crops For the first time, research and production schemes for the main cash crops in the State have been drawn up.

14. It has already been pointed out that there is great need to optimise the distribution of effort and resources between programmes of research and extension and development Of the total outlay of Rs 249 59 lakhs on agricultural production, Rs 136 63 lakhs (55 6%) is allotted to programmes of development and extension Attention to research and education in agricultural science is also given in the Plan in so far as a sum of Rs 65.59 lakhs has been included for such scheme. The requirement of trained personnel is proposed to be met through organisation of an Agricultural College.

15. From time to time various kinds of pests have attacked the major agricultural crops like paddy and cocoanut Schemes for intensive cultivation of these crops are self defeating if care is not taken in eliminating such pests The Plan has provided for plant protection and pest control by alloting about 12%of the total outlay on agricultural schemes towards such measures.

2. MINOR IRRIGATION (PANCHAYATS)

16. Irrigation works which benefit an area of 200 acres and less and above five acres are classified as Minor Irrigation Works. To be an economic proposition the cost of Minor Irrigation Works is fixed at Rs. 250 per acre of the area benefited. During the First Five Year Plan 1713 items of Minor Irrigation Works have been executed in the State benefiting an area of 1,66,690 acres at a total expenditure of Rs. 327·60 lakhs.

17. During the Second Five Year Plan period about 810 works are proposed to be taken up for execution at a cost of Rs. 72·00 lakhs. The area expected to be benefited during the Plan is 42,000 acres.

18. In the Travancore-Cochin area minor irrigation works are attended to by the Department of Local Bodies and in the Malabar area by the Public Works Department Minor Irrigation works include surface percolation wells, tank and channels and tube wells

19 A provision of Rs. 2 50 lakhs is included in the Plan for the Scheme of Ground Water exploration. The object is to explore the possibilities of ground water for irrigation purposes by means of tube wells.

Medium Irrigation.

20. The plan provides for the construction of 34 Medium Irrigation schemes spread throughout the Travancore-Cochin area of the State , 8 in Trivandrum district, 6 in Quilon, 5 in Alleppey, 4 in Kottayam and 11 in Trichur. Irrigation schemes of similar type in Malabar area are considered under Special Minor irrigation schemes The total cost of the scheme is Rs 86 08 lakhs. This will benefit an area of 74,773 acres The capital cost per acre works out to Rs 115

Special Minor Irrigation.

21. These irrigation schemes in the Malabar area are similar to "Medium and Minor" in Travancore-Cochin area It is proposed to take up a number of irrigation schemes during the Second Five Year Plan period and to complete the schemes which were under progress at the end of the First Plan period The total area expected to be benefited by these schemes is 15,000 acres at a cost of Rs 47·60 lakhs

Lift Irrigation

22 The Second Five Year Plan of the State provides an amount of Rs 28 50 lakhs for Lift Irrigation Schemes. Thirty-two items of works are programmed so far which include completion of 20 works carried over from First Plan These schemes will benefit about 9,644 acres of lands The capital cost per acre works out to Rs 147 In addition to these, schemes costing Rs 14 58 lakhs are proposed to be drawn up for the river valleys of Pampa, Muvattupuzha, Chalakudy and Periyar.

3. ANIMAL HUSBANDRY.

23 The per capita consumption of milk in Kerala is probably the lowest in India, being only 2 ounces per day as against the all-India average of 5 5 ounces. The main reason for this abnormally low consumption of milk in the State is the poor quality of cattle No systematic attempt has been made so far to improve the breed of cattle in the State. The problem is complicated because cattle breeding facilities themselves are fast dwindling. With the growing pressure on land, all available land including areas at one time set apart as grazing grounds is being progressively brought under the plough. Cattle have therefore to be

fed on costly foods like oil cakes and straw. This raises the price of milk beyond the reach of the common man. Poultry farming is a very popular and common cottage industry in the State The State is a major exporter of eggs not only to other parts of India but also to foreign countries.

24. The following table gives the live-stock population of the State according to the 1956 census.

	Category.		***No. in thousands.***
1.	Breeding Bulls	.	**11**
2	Working Bullocks	.	**553**
3	Other bullocks	.	**38**
4	Cows in milk		**396**
5.	Other Cows	..	**601**
6.	Young Stock	..	**911**
7	Total Cattle	..	**2,510**
8	Breeding He-buffaloes	..	**4**
9.	Working He-baffaloes	..	**247**
10	Other He-buffaloes		**6**
11	She buffaloes in Milk	..	**61**
12	Other she-buffaloes	.	**77**
13	Young Stock		**92**
14.	Total buffaloes	.	**487**
15	Sheep	..	**98**
16	Goats	..	**956**
17	Other animals	..	**117**
18.	Poultry	..	**6,795**

25 The number of milch cows and she-buffaloes per **1,000** persons is only 30 The number of working bulls and **he-buffaloes** per 1,000 acres of cultivated land is **179. On an average 1,000** persons have **167 heads of cattle.**

26 Any scheme for the development of cattle and poultry on a large scale will be incomplete if not supplemented by measures for the control and cure of diseases Veterinary hospitals and dispensaries manned by qualified veterinarians have been in existence in the State for about 50 years now. Development in the field has been steady and the position at the end of **1955-56** is given in the table sub-joined.

Type of Institution.	***Number.***
Veterinary hospitals	**40**
Dispensaries	**45**
Artificial Insemination Centres	**9**
Veterinary First Aid Centres	**7**
Livestock Farms	**3**
Poultry Farms	**3**
Number of technical staff	**252**

Progress under First Five Year Plan.

27. The First Five Year Plan did not contemplate any large-scale outlay on veterinary and animal husbandry schemes. During the Plan period one veterinary hospital and 9 dispensaries were opened while 2 dispensaries were converted into hospitals

Programme for Second Five Year Plan.

28. An outlay of Rs 112·16 lakhs is planned for animal husbandry schemes in the Second Five Year Plan Developmental effort during the period will be diversified in order to cover all the important aspects of animal husbandry development. Thus emphasis is laid on schemes of extension. The most important among these will be the opening of 3 key village centres in Malabar area at a cost of Rs 13 03 lakhs with facilities for work on artificial insemination and the scheme for the starting of 2 new poultry farms and improvement to the existing poultry farms as well as 20 new centres under the All India Poultry Development Schemes, all together at a cost of Rs. 14·27 lakhs. The three key village centres will be in addition to the existing 5 centres These form part of the All-India livestock development programme Facilities for artificial insemination are considered as basic to livestock development

29. Emphasis has also been laid in the Plan as Schemes for medical facilities 38 new institutions including hospitals and dispensaries are to be opened during the plan period. Over and above these, if additional facilities are required, funds are available for this purpose under the schemes for community development

30 The plan also lays emphasis on research on the problems in this field. A scientific evaluation of these problems and their solution can be made only if there are personnel and institutions to do it A Verterinary college has already been started in this State in 1955-56 The college will run a course for 4 years with 70 students in a batch and is expected to supply the requirements for the present of trained personnel in this field Rs 38 lakhs have been included in the Plan to complete the establishment of the College

31. Among the different research schemes in the field of animal husbandry that will be taken up during the Plan period are included 4 schemes sponsored by the Indian Council of Agricultural Research at a total cost of Rs. 4 75 lakhs.

32. Three schemes have been earmarked in the Plan for animal husbandry development where the principles of co-operation are to be introduced. The installation of a pasturation plant in Kozhikode to develop the activities of the milk supply union in that town will help in the creation of a number of feeder societies in the surrounding villages. Similarly the Trivandrum Milk Supply Union will be developed along modern lines at a cost of Rs. 6 41 lakhs. The third scheme under the co-operative fold will be the starting of a cattle breeding society which will help the improvement in the strains of cattle belonging to the members of the society.

4. FORESTS.

33. The territory forming the State can be distinguished as falling into three district zones of vegetal formations. The coastal area starts with a sandy stretch and can be classed as typical cocoanut country, which further eastwards meets undulating tracts, dominated with lateritic formation, bearing the largest extent of agricultural and paddy lands; progressing further eastwards, submontane hilly country with a medium elevation of 1500′ to 3000′ stretches out. This consists predominantly of forest-clad hills and a considerable extent of estates raising hill produce, like rubber, coffee and cardamom. Rising further and forming the main chain of the western ghats are the hills well known as the High Ranges.

34 The State is covered by forests to the extent of nearly 3500 sq. miles and from these flow rich revenue, on an average about Rs. 10 per acre compared to Rs. 3 for the whole of India. Forests are very important to the economy of the State over and above their value as an earner of foreign exchange. The timber yard at Kallai is reported to be the second largest in the whole world.

35 In this context it is to be remembered that as a result of large-scale clearing of forests in recent years under the Grow More Food drive, as also of the move to allot land to the landless and the activities of encroachers, the forest has been considerably depleted. The clearing has been done in a hurry and under no systematic plan, so that scientific principles of land utilisation have often been lost sight of The accumulation of soil washed down from the hill-side has affected the usefulness of most of the rivers in the State, for navigation Most of the newly cleared area is being badly eroded by the heavy precipitation in those areas. Protective work has not yet been taken up so much so that the catchment areas of the more important river systems demand serious attention as they feed the major power and irrigation projects in the State

36. Vast forest tracts have also been cleared under obligatory causes, viz , to provide water-spread areas for irrigation and power projects; more forest areas will be encroached upon in the near future on the same score.

37. It is thus necessary to increase the productive capacity of the bleak and barren areas, including grassy tracts and denuded revertible forest areas, to ensure a sustained yield. There has been a regular programme of annual re-afforestation operations, which under normal circumstances should balance the effect of exploitation. We have more than 80,000 acres of forest plantations, chiefly teak, at present. This, however cannot balance the extra-ordinary exploitation noted above

Programme under Second Five Year Plan

38. There was no scheme on forest development during the First Five Year Plan. In the Second Five Year Plan Schemes costing a total of Rs. 128·24 lakhs have been included.

39. **The largest single scheme** among these is the one for acquisition of private forests in the Malabar area for which Rs 40·95 lakhs has been included in the Plan An allotment of Rs. 37·12 lakhs is provided for expansion of cashew cultivation, Rs. 25·00 lakhs for starting plantations covering 15 000 acres and the rest as financial assistance by way of loans to small growers who will total up to a planted area of 8,000 acres. Funds have also been provided for a pilot scheme to afforest the barren grass lands on the higher hills.

40. A scheme for specialised training of forest officers and research along with formation of a museum will cost Rs 5·69 lakhs during the Plan period

41 For setting up a Forest Engineering division Rs 4 00 lakhs is being provided, while a similar amount is earmarked for the afforestation of 2,500 acres of forests.

42. Expansion of planting of Commercial timber, especially teak or other hard wood will be taken up at a cost of Rs 1 48 lakhs. New or improved techniques of timber extraction are to be tried during the plan period and for this purpose equipments worth Rs. 2 00 lakhs will be purchased.

43. An allotment of Rs. 18·00 lakhs is made in the Plan for constructing 16 roads into inaccessible areas in the forests and 217 buildings for housing staff in these areas.

44. Soft wood especially wood suitable for matches is of great commercial value and is vital to the continuous functioning of a number of industrial establishments. In order to ensure a more regular supply of these items the plan has provided Rs. 10·00 lakhs for regeneration of softwood in 6000 acres and matchwood in 3000 acres.

45. Finally, the Plan includes a scheme for improvement of Game Sanctuaries and formation of National parks Rs 5·00 lakhs has been provided for this

5 SOIL CONSERVATION.

46 The State by the nature of its topography has always been faced with the menacing problem of soil erosion which has not been tackled on a scientific basis During the war and post-war periods large areas of forests and waste lands were brought under cultivation The indifference of the cultivators of these lands to the problem of soil erosion has greately accelerated their utility. This has resulted in the silting of navigable rivers and the progressive depletion of the fertile top soil from the hill slopes.

47. During the beginning of 1955 a soil conservation project was inaugurated in the former Travancore-Cochin State for undertaking soil conservation work. The salient features of the project planned was :

(a) The accepted principles of soil conservation on cultivated lands as evolved and proved in other parts of India and the world will be adopted with modifications necessitated by local conditions,

(b) In view of the high precipitation and the steepness of the cultivated slopes, especially on forest lands, slopes above 20% will as far as possible be reverted to Reserve forests.

(c) Marginal lands of doubtful suitability for agriculture will be permanently allotted to Reserve forests, except in the case of those areas which have been under cultivation for a very long period. Similarly small packets of Reserve forest on the higher slopes of hills will be dis-reserved if they are in the midst of densely populated areas.

(d) The work will be taken up only on complete water shed basis and not on individual holding basis The nature of work in each area will be decided on the basis of soil characterstics, topography of catchment, intensity of precipitation, the extent of erosion which has already occurred, the type of cultivation to be followed and the overall question of economy.

48. The target for conservation in the second Plan will be 20,000 acres. The provision of Rs. 25.50 lakhs will also finance a scheme for a soil conservation Research Station and the opening of a number of pilot demonstration projects in cultivated lands to demonstrate soil conservation methods to the agriculturists.

6. FISHERIES.

49 With a coast line of about 360 miles and a large number of backwaters and innumerable rivers, fishing is an important industry in the State Kerala ranks second among the States in India in per capita consumption of fish. Economically and socially the fisher-folk in Kerala are very backward. Only about one fourth of the total number of fishermen possess implements of any kind. The others either work for middlemen who own boats and nets or are unemployed for the major part of the year.

50 Eventhough fish is available in plenty at no great distance from the coast line the fishermen are unable to work all the year round because of adverse weather conditions. The most fertile fishing season coincides with the season of the worst disturbances in the sea namely the monsoon season. It is during this season that fishermen are mostly unemployed because of the risk involved in launching their boats to sea across the breakers. Unless protected landing places are provided, this problem will remain and will contribute to the other problem viz., dependance and indebtedness to middlemen. In order to improve the standard of living of the fishermen it is necessary to increase the volume of the catch and the frequency of fishing operations and to develop facilities for marketing the catch quickly and in fresh condition.

51 The total number of fish-curing yards in the State during 1955-56 was 64. • The number of Fishermen's Co-operative Societies was 145.

Progress under F. F. Y. Plan:

52. During the First Five Year Plan a total outlay of Rs. 15·00 lakhs was made on fisheries schemes. These included the opening of 3 research centres at Vizhinjam, Tiruvalla and Ernakulam, construction of curing sheds and cutting platforms in 3 fish curing yards, the supply of fingerlings at a cost of Rs. 25,267 and the issue of loans to fishermen's co-operative societies to the extent of Rs. 24,000

Programme in the Second Five Year Plan:

53. The total outlay on "fisheries" Schemes is planned at Rs. 93·37 lakhs during the Plan period The major part of this outlay will be utilised in schemes which bring direct benefit to fishermen at their jobs The most important of these schemes will be the construction of break-waters costing Rs 21 95 lakhs and the introduction of ice-plants at a cost of Rs 21·55 lakhs.

54 The scheme of break-waters leading to the building up of fishing horbours is of fundamental importance to this State since plans for developing fishing cannot be separated from the introduction of mechanised crafts The coastline of the State has an uninterrupted run through most of its course and as such introduction of mechanised crafts becomes difficult unless safe landings are constructed Under the scheme for breakwaters, fishing harbours are planned at Vizhinjam and Beypore.

55 A scheme for rationalised distribution of the fish caught must be developed along with schemes for expanding fishing activities It is a common feature in the State that during seasons of heavy catch fish is so plentiful that very often they have to be thrown away as waste, resulting in no benefit to the fishermen The raising of the incomes of the fishermen is sought to be achieved by the progressive introduction of cold storage plants in strategic points in the state, thus spreading out the benefits of the catch, resulting in stabilisation of the fish markets. The scheme for introduction of ice plants also includes plans for introducing refrigerated transport. It is anticipated that the stores and plant will be leased out to fishermen's organisations, mainly co-operative societies.

56 Schemes for mechanisation of small crafts have also been included in the Plan along with a scheme for power fishing where a mechanised mother craft leads a fleet of small vessels to fishing grounds.

57 Fresh water and estuarine fisheries will also be developed during the Plan period in addition to schemes for stocking ponds with fish and making use of the major irrigation reservoirs in the State for starting fisheries.

58. Provision has been made in the Plan for developing fisheries research through the existing research stations in the State.

7. CO-OPERATION

59. The Co-operative movement has had a life of more than 40 years in the State The number of co-operative societies in existence during 1955-56 was 3,104 These had a membership of 4,83,113. There was thus a co-operative society for about 2¾ sq. miles of inhabited area; and one out of every 15 adults is a member of a Co-operative Society. Assuming that each member represents a seperate family, one out of five families is connected with the movement.

60. The problem which faces the State is not want of co-operative organisations, but the existence of too many of them, often in an inactive state, bringing the movement to discredit. The average share capital of a society is less than Rs. 200, the average holding of a shareholder is less than Rs. 25 and the average turnover is less than rupees one lakh. The present trend of thought is that the share capital of a primary society should be at least rupees one lakh and its turn over Rs 12 lakhs This shows the gap which has to be filled in respect of the existing societies if they are to reach the level of effective participation in economic reconstruction.

Progress during First Five Year Plan:

61 The achievements during the First Five Year Plan period was consistent with the limited targets proposed. Co-operation effort was spread out into different fields as seen from the opening of the following new institutions during the Plan period.

Village Banks	..	15
Marketing Societies	..	35
Handloom Societies	..	14
Milk Supplies Societies	..	8
Building Societies	..	4
Farming 'Societies	..	20
Multi-purpose Societies	..	36

Programme for Second Five Year Plan:

62. The Schemes included in the Second Five Year Plan have been developed along the lines of the recommendations of the All India Rural Credit Survey Committee Basically the argument is for an integrated plan for development of co-operative institutions covering different fields of economic activity. The schemes in the Plan can be broadly grouped into—

1. Reorganisation of Credit.
2. Co-operative marketing and processing.
3. Co-operative Farming.
4. Co-operative Training

63. In addition there are a few schemes leading to the overall strengthening of co-operative activity.

1. Reorganisation of Credit.

64. Reorientation of credit structure is of fundamental importance to the Plan for revitalising the co-operative movement in the State since an important cause of failure of co-operatives has been the relative weakness of the co-operative societies as credit institutions *vis-a-vis* the private agencies. The Rural Credit Survey Committee has suggested that the problem facing the co-operatives is not so much of reorganisation of co-operative credit, but rather is the creation of conditions in which credit could operate effectively for the benefit of the weaker sections of the community.

65 The Scheme for reorganisation of credit in the Second Five Year Plan will start with the reorgonisation of the State Co-operative Bank. The membership of this Institution will be confined to the Central Co-operative Banks and Societies which have direct dealings with it The optimum level of share capital of the Bank will be maintained at Rs 50 lakhs of which 51% will be held by Government The Bank will give priority to agricultural loans while extending short and medium terms loans.

66. The branches of the State Co-operative Bank at Alleppey and Kottayam in Travancore area will be gradually converted into Central Co-operative Banks for this area. There are such banks already in the Trichur District and Malabar area so that ultimately there will be one such bank in each District. Central Land Mortgage Banks will also be established in each district and the work of these will be entrusted with the Central Co-operative Banks in the Districts.

67. The base of this pyramid will be 300 large sized credit societies, open for membership to all persons residing in a Panchayat area.

68 Some of the large sized credit societies will own godowns for storing the produce of members.

69. The State Government will participate in the Share Capital of these societies and will partly subsidise and also give loan for the construction of godowns

70. The Scheme for integrated credit requires strengthening of administrative staff in the Department and organising staff for the land mortgage banks. Funds have been allotted for this purpose in the Plan.

71. The cost of these schemes covering reorganisation of Credit will be Rs 23·773 lakhs during the Plan period.

2. Co-operative Marketing and Processing.

72. Co-operative marketing and processing of agricultural commodities play an important part in making co-operative movement as a whole successful Co-operative production has failed where arrangements for processing and marketing have not followed it. In the Second Five Year Plan provision has been

made for starting 30 primary agricultural marketing societies commodity-wise to deal in Coir, Rubber, Pepper, Arecanut Ginger, Cashew, Tapioca and fruits and vegetables. Each of these primary societies along with each district marketing society will own a godown.

73. Government will contribute to the Share Capital of these societies, advance loans for construction of godowns and generally participate in their management.

74. The Plan has also provided for loans to processing societies as well as to marketing societies undertaking processing activities. At the apex of these societies an apex marketing society will function at Alleppey which will advise the marketing societies on policy matters.

75. A scheme costing Rs 16.7 lakhs for the establishing of a State warehousing company is included in the Plan and this is expected to form a vital link in the chain of development.

76. The total outlay on schemes for co-operative marketing and processing including the cost of establishing the State Warehousing Company will be Rs 59·356 lakhs.

3. Co-operative Farming.

77 An integrated Scheme of Co-operative Farming included in the Plan envisages the establishment of 28 co-operative farming societies where Government will participate in Share Capital, loans and grants. The Scheme also envisages the establishment of a collective farming society in Ernad taluk in Malabar area with colonisation facilities for 100 Harijan Colonists.

78. The Plan provision for these schemes is Rs. 4.534 lakhs.

4 Co-operative Training, Education and Propaganda.

79 The Plan provides Rs. 9 297 lakhs for training facilities for different categories of members and officers of the co-operative societies This will ensure an abundant supply of competant personnel to manage the various societies. In addition, Co-operative Department will run a publicity campaign on the Plan Schemes under co-operation which will help in creating the right attitude in people for the successful development of the co-operative movement

5. Miscellaneous Schemes.

80. Among these schemes costing Rs 23 49 lakhs during the Plan period, the most important will be the establishment of regulated markets in the Travancore-Cochin area. Regulated markets already exist in the Districts of Cannanore, Kozhikode and Palghat.

81. As a first step regulated markets will be established for copra and arecanut eventually bringing the other important cash crops like cardamom, cashew, etc., under its scope.

82. There will also be a Co-operative Development Fund and a Relief and Guarantee Fund, each of Rs. 6·0 lakhs, which will help in the extension and stabilisation of co-operative movement in the State.

8. AGRICULTURAL STATISTICS.

Programme under Second Five Year Plan.

83. A total sum of Rs. 8 99 lakhs has been provided in the Second Five Year Plan for the implementation of the schemes comming under Agricultural Statistics. During the Plan period, it is proposed to collect estimates of production in respect of commercially important minor crops through Land Utilisation Surveys. It is also proposed to improve the reliability of such estimates by increasing the sampling fraction of the Land Utilisation Surveys to five per cent from the present one per cent. By intensive cultivation and by bringing all cultivable waste-lands under cultivation it is planned to increase the agricultural production in the State As a first step towards this programme, a ten per cent sample survey is proposed to be conducted to estimate the extent of cultivable waste lands in the State Under the Scheme "Diagnostic Studies and Supervision", five District Statistical Officers in the Travancore-Cochin area and three District Statistical Officers in the Malabar area have been appointed. These Officers will supervise the work of the field staff and undertake diagnostic studies for the reconciliation of figures collected by different agencies with the figures collected by the Department of Statistics. In the Travancore-Cochin area the estimates of area under principal crops are being worked out from Land Utilisation Surveys. There has been no such surveys in Malabar area and the estimates of the area under crops are being formed on the basis of reports from Village Officers. As these reports have been found to be not sufficiently reliable, it is proposed to conduct an agricultural census in the Malabar area on a sample basis.

9. COLONISATION

84. The problems of colonisation may arise out of the need for—

1. Settling persons who have no means of livelihood ;
2. Settling backward people in selected areas providing them social overheads necessary for their development.
3. Developing special areas

85. All these situations have arisen in one form or another in this State With a tremendous pressure of population on land along with growing levels of unemployment, the need for planned schemes for colonisation becomes imperative.

86. In the Second Five Year Plan colonisation schemes costing Rs. 58·76 lakhs have been included. Four schemes will be implemented during the plan period among which the largest outlay during the period will be on the scheme for High Range Colonisation in the Kottayam District. The Plan provides

Rs. 25.51 lakhs for this scheme which will colonise 8000 landless agriculturist families over an area of 40,000 acres. The total cost of the major scheme of which the present proposals form a part is estimated at Rs. 233.5 lakhs of which Rs. 214 lakhs is to be given as loan by the Government of India. The scheme for Wyanad colonisation has been in operation for some time and 2940 families are already established in the colony. The scheme was originally launched to relieve congestion, overpopulation and consequent poverty in Malabar area. The colony extends over 33,800 acres with another 5 sq miles which can be absorbed into the area For continuing this scheme of colonisation, the Plan has provided Rs. 15.00 lakhs.

87 A provision of Rs. 13.50 lakhs is also included for the Attapady land colonisation scheme. This covers an area of about 280 sq miles containing mainly aborginal class of people The scheme is a multi-purpose one which plans to develop all spheres of social life of these people.

88. The co-operative colonisation scheme envisages the giving of cultivable lands to actual cultivators who have no lands of their own and to encourage co-operative farming in the State The colonists will be given the benefit of grants as well as loans. Rs. 4.75 lakhs has heen provided in the Plan for this scheme.

10. COMMUNITY DEVELOPMENT PROGRAMME.

Progress under the First Five Year Plan

89. The Community Development Programme was introduced in the State in 1952 to serve as pilot projects for the development of the rural population The main objective of the programme was to raise the standard of living of man and to give the rural people facilities for economic, social and cultural development. It is a multi-purpose programme covering all faces of rural life; but agriculture is given the top-most priority. Among the 55 projects started all over India, 3 were allotted to this State. They were the Kunnathunad-Chalakudy Project and Neyyattinkara-Vilavancode Project in the erstwhile Travancore-Cochin area and the Palghat Project in the Malabar area, In 1953-54 one Community Development Block, viz , Kuttanad Development Block, was allotted to this State Since then Government of India decided to start only N. E. S. Blocks and then convert them into Blocks of the Community Development type on the basis of the progress of expenditure and people's contribution in the blocks Thus there were three kinds of blocks viz. the N. E. S. Blocks, Community Development Blocks and the Post Project Blocks. In Kerala there were 13 Post-project Blocks, 3 C D. Blocks and 16 N. E. S. Blocks by the end of the First Pive Year Plan.

Progress for the Second Five Year Plan.

90. The programme for the Second Five Year Plan was to cover the entire State with N. E. S. Blocks and to convert 40 per cent

of them to C. D. Blocks. The State of Kerala has been delimited into 142 blocks. So far, 69 blocks have been opened including 5 blocks opened on 1-4-1958, 13 Post Intensive Blocks and 12 C. D Blocks. The plan provision for Community Development and N. E. S Blocks is Rs. 547 84 lakhs.

91. The Team appointed by the National Development Council to study and report on the working of the Community Project and N. E. S. Blocks submitted a report and their recommendations have now been examined by the National Development Council and some of them have already been approved

92. One of the decisions is the revision of the programme of Community Development. The revised pattern envisages only 2 stages in the programme, viz Intensive Development stage and post intensive stage, as against the three existing stages. The first stage is for a period of 5 years with an allotment of Rs. 12 lakhs and the Second stage for another 5 years with an allotment of Rs 5 lakhs The programme of covering the entire State with N. E S. Blocks by April 1961 has been staggered and it has been decided that the whole State need be covered only by October 1963 The number of blocks allotted for the rest of the Second Five Year Plan for Kerala will therefore be only 23 including 5 opened in April 1958 as against 78 under the original programme. The Post Intensive Blocks will be allotted Rs 1 lakh each a year for the remaining period of the Second Five Year Plan.

93. According to the revised pattern the number of trained hands to be made available for the blocks will be considerably reduced with the result that the number of training institutions existing at present may have to be reduced or otherwise utilised. A complete reorganisation of the training programme is contemplated The full provision of Rs 547 84 lakhs will, however, be utilised in view of the enhanced provisions for the blocks in the first stage and the additional provision for Post-intensive Blocks

94. Decisions regarding the remaining recommendations of the Study Team are awaited.

CHAPTER II

SECTOR—II

IRRIGATION & POWER.

1. IRRIGATION

The need for increasing the food production in the State has been emphasised earlier One way of achieving this is to provide more and better facilities for irrigation. Since the State receives abundent rainfall in both the monsoons, irrigation was not given much attention before. In fact, in some areas of the State, the problem is to drain out the excess water from the fields Until recently the State had no major Irrigation System. No doubt, minor irrigation facilities were available in many parts of the State. The acute food shortage of the war and postwar years highlighted the necessity for irrigation and investigation of a number of major irrigation schemes was undertaken The Kuttanad Development Scheme, the Chalakudy Scheme, The Peechi and Wadakkancherry Schemes and Malampuzha, Mangalam and Walayai Projects are the chief among these The grow more food Campaign was also launched vigorously and the provision of minor irrigation facilities received special impetus. The possibilities of lift irrigation on the banks of the Chalakkudy, Periyar, Muvattupuzha and Pampa rivers also recevied attention and some schemes were executed.

2 During the year 1955—56, the total area irrigated in the State through Government and private canals was 3.96 lakhs acres Tanks and wells irrigated another 1.06 Lakhs acres. The area irrigated by natural sources like rainfall was 3.09 lakhs acres Thus out of the cultivated area of 44.87 lakhs acres, 8.11 lakhs acres(18 1 per cent) received the benefit of irrigation This compares favourably with the all-India average of 17 per cent. The following table gives the details of irrigation in the State during 1955—56.

	Source of Irrigation	Area irrigated (in 1000 acres)	Percentage to total irrigated area	Percentage to total cultivated area.
1.	All Sources .	811	100.0	18.1
2	Government Canals ..	328	40 4	7.3
3.	Private Canals ..	68	8.4	1.5
4.	Tanks .	77	9.5	1.7
5	Wells ..	29	3.6	0.6
6.	Other sources .	309	38.1	7.0

Achievements During First Five Year Plan Period

3. Eight major irrigation Schemes were included in the First Five Year Plan. Brief description of the schemes and the progress of work in these during the Plan period are given below :

(1) Neyyar Scheme.

4. The scheme envisages the construction of a masonry dam 170 ft high and 965 ft, long across the river Neyyar, two distribution channels and 30 miles of branch channels. The actual construction work was started in 1951 and at the close of the First Plan period 75 per cent of the work was completed

(2) Kuttanad Development Scheme.

5. Kuttanad is an important paddy producing region in the State with about 121,000 acres under paddy cultivation But the area is subject to monsoon floods during the crop season The Kuttanad Development scheme envisages the following works·

(i) Cutting open a spillway at Thottappally for flood discharge by the shortest route to the sea , and

(ii) Construction of a barrier across the Vembanad lake at Thannirmukkom to prevent tidal inflow of salt water into Kuttanad The spillway work was completed by the end of 1954. Work on the salt water barrier at Thannirmukkom was held up pending detailed investigation of its effect on the Cochin Harbour.

(3) Chalakudy Irrigation Project

6. The Scheme aims at diverting the waters of the Chalakkudy river now running to waste by constructing an anicut of 435 ft. length with an average height of 9 ft and a crest width of 12 ft 6 inches Two channels on either side with a total length of 35 miles and 100 miles of branch channels are also proposed to be constructed.

7 At the end of the first plan period 35 miles of main canal and 93 miles of distributaries were completed. About 16,500 acres of land have been benefited out of the target area of 28,400 acres.

(4) Peechi Irrigation Project

8. This scheme comprises mainly the construction of a masonry dam (storage 3,900 M, cft) of 750 ft. in length and 120 ft in height across the river Manali about 15 miles from the Trichur town with 51 miles of main canals and four major acqueducts.

9. By the end of the First Plan period 51 miles of main canal and 90 miles of tributaries have been completed.

(5) Vazhani Irrigation Project.

10. The scheme envisages the construction of an earthen dam across Wadakkancherry river and excavation of a distribution system consisting of 24 miles of main canals and 14 miles of branch channels.

11. Work on the main canal has been nearly completed

(6) Malampuzha Project.

12. This project consists of a dam across the Malampuzha river, a tributary of Bharathapuzha at a place 4 miles to the east of Olavakot Junction and a system of canals and channels. The aggregate length of the dam is 6066 ft of which the masonry portion is 5337 feet. The remaining portion is of earth. The maximum height of the dam is 125 ft. The reservoir will have a capacity of 8,000 M Cft The catchment area of the river at the dam site is 57 sq. miles. The distributory system in the left flank consists of a main canal about 20 miles long and branch channels totalling about 130 miles On the right flank the distributary system consists of 17 miles of main canal and a number of minor channels

13 The construction of the dam has been completed. Work on the left bank canal and distributaries has also been over. Investigation and excavation of the right bank canal and tributaries are in progress

(7) Walayar Reservoir Project.

14 This project consists of construction of a dam 4851 ft long across Walayar river and connected main canal of 7½ miles and branch channels of about 12 miles.

15. About 85 per cent of the work was completed at the end of the first Plan period

(8) Mangalam Reservoir Scheme.

16. This project consists of a dam 3499 ft long across Mangalam river at a place about 30 miles from Palghat The total length of main canal is 22¾ miles.

17. About 95 per cent of the work was completed in March, 1956.

18 The financial and physical targets and actual achievements in each of these schemes are given in the subjoined table.

Scheme.	Total cost	Expenditure (Rs in lakhs)			Benefits			
					on Completion		At the close of First Plan.	
		Before Plan	During Plan	Total	Area, benefited (acres)	Additional Annual rice production (Tons)	Area benefited (acres)	Additional Annual rice production (Tons)
Neyyar	146·00	..	96·19	96 19	15,000	12,046	..	..
Kuttanad (Spillway at Thottappally	57 65	..	57·65	57 65	*1,21,000	41,000	.	.
Chalakudy	128 25	22·23	87 98	110 21	28,400	17,748	16,500	10,195
Peechi	235 00	63 25	128 14	191 39	46,000	16,750	23,000	7,345
Vazhani	107·57	5 02	53 96	58·98	12,800	7,288		..
Malampuzha	528·00	79.37	398 89	478 26	47,600	14,200	35,000	10,440
Walayar	116 66		87·46	87 46	8,000	2,900	.	..
Mangalam	97·51		54 97	54 97	6,000	4,000	..	..
Total	1,416·64	169 87	965 24	1,135·11	284,800	115,932	74,500	27,980

*This takes into account the benefits that will be obtained on completion of the Salt water barrier at Thanneermukkom.

Additional Food Production from Major Irrigation Works

19 On completion of all the 8 major irrigation projects a total of 284,800 acres will be benefited The estimated additional production per year is 1 16 lakh tons of rice At the end of the first plan period, 74, 500 acres were benefited resulting in an annual additional production of about 28,000 tons of rice.

Programme during Second Five Year Plan

20 Schemes costing Rs 863·48 lakhs have been included in the Second Five Year Plan Rs. 265 67 lakhs out of this will be directed towards the continuation of operations on schemes begun First during the Five Year Plan period. Most of these spill over schemes are expected to be completed during 1958-59 When these schemes are completed during the Plan period, the full benefit from these will start accruing, that is a gross area of 4 19 lakhs acres will derive benefits of improved irrigation facilities

21 On the realisation that provision of irrigation facilities is fundamental to the solution of the food problem of the State, a number of new schemes are being taken up during the Plan period The following table shows details of these schemes —

		Area benefited (acres.)	Total cost (Rs. lakhs)	Provision in S F Y Plan (Rs lakhs)
1.	Salt water barrier at Thanneermukhom .	1,21,000	150·00	76·00
2	Neyyar 2nd stage ..	19,100	106 00	71 25
3	Chalakudy 2nd stage	20,250	57 00	57 00
4	Bhoothathankettu (Periyar valley) .	63,300	348 00	200·80
5.	Meenkara .	4,100	56 34	56 34
6.	Cheerakuzhy ..	4,000	31·92	31 92
7.	Pothundy	9,128	88·00	70 00
8	Kattampally Multi-purpose Scheme .	5,000	28·63	25·00

22. The importance of regional development has been kept in view in selecting these schemes for implementation The outlay is so planned as to bring benefit to selected areas over the entire length of the State

23 The Kattampally Multipurpose Scheme covers varied benefits as irrigation, navigation, flood control, salt water exclusion, land reclamation etc

2 Power

24 The State is deficient in mineral oil or coal but has abundant resources of hydro-electric power The rivers of the State, which are numerous, rise at 3,000 or 4,000 feet above sea-level and fall within a distance of 20 miles to a level of about 500 ft There are convenient locations between steep hills where the waters can be impounded and dropped to considerable depths in stages for the development of power The rainfall in the catchment is between 125 and 200 inches and enough water can be stored for the whole year during the monsoons in dams which are comparatively cheap to construct The distances from the sources of supply to the centres of consumption are small On account of these advantages and the absence of other fuel resource, it was realised early enough that the economic prosperity of the State is inextricably bound up with the development of hyro-electric power The heavy density of population with the consequent pressure on land leaves industrialisation through the use of electricity as the only alternative means to tackle the mounting unemployment of the people

25 The State is one of the earliest to develop hydro-electric power in India The first scheme to be taken up was the Pallivasal Hydro-electric Project which was begun in 1933 The first stage of the project was completed in 1940 and 13,500 K W. of power generated Programme was at a comparative standstill during the war years on account of the paucity of materials and equipment. During the postwar years, progress was rather rapid and at the end of the First Five Year Plan period, the total generating capacity was 85,500 K W. During 1956, a total of 363·733 million units of electricity was generated in the State of which 282·529 million units were sold 7 3 per cent of the total consumption was for domestic purposes while industries accounted for 85 0 per cent. The following table gives the details regarding electricity generated and sold in the State during 1956.

Month	Units Generated	Total	Domestic	Commercial	Industrial	Public Utilities
		Sales by class of Consumers				
1956 Total	363 733	282 591	20 673	2·315	240 211	18·330
January	32·158	22 591	1·511	0·162	18 794	2 124
February	31 962	25 582	1 827	0·184	21 569	2 002
March ..	34 804	27 580	0 915	0 192	23 315	2 158
April ..	26 225	19·139	1 722	1 191	15 791	1 435
May .	31 766	22 924	2·004	0 209	18·994	1·717
June	29·978	21 840	1 910	0·208	18·092	1 630
July	31 331	25 097	1·768	0 181	22 288	0 860
August	24 721	20 007	1·472	0·165	17 673	0 697
September .	20 499	16 840	1 291	0 156	14 798	0 595
October .	31 336	24 604	1 758	0 180	21 820	0 846
November	34 089	27 997	2 218	0 245	24 555	0·979
December	34 864	28 328	2 277	0 242	22 522	3 287

(Kilowatt-hrs in Millions)

Progress during First Five Year Plan

26 *Power projects* —The Power Schemes involved a total expenditure of Rs 1,123 lakhs against a plan target of Rs 1,185 lakhs The details of target and expenditure of the individual schemes are given in the sub-joined table:

	Name of Scheme	Generating capacity K W.	Plan target (Rs. in lakhs)	Expenditure (Rs. in lakhs)	Percentage of expenditure to target
	(1)	(2)	(3)	(4)	(5)
1	Pallivasal Hydro-Electric Scheme (2nd Stage) ..	9,000	160 00	*940 00 (items 1 and 2)	95 4 (items 1 and 2)
2.	Sengulam Hydro-Electric Project	48,000	185·00		
3.	Poringalkuthu Hydro-Electric Scheme ..	24,000	135·00	183 00	..
4.	New Schemes .	53,000	65 00	..	..
5.	Transmission and Distribution ..		640·00	..	.
	Total ..	134,000	1,185·00	1,123·00	94·7

* Including expenditure under item 5.

27 A short description of each of these schemes is given below: —

(1) *Pallivasal Hydro-Electric Project.*—This scheme covers (i) the construction of a dam at Mattupatty, 150 ft high with a storage capacity of 1,900 M Cft across the Muvattupuzha river 7 miles east of Munnar, (ii) the modification of the existing 3 water wheels at Pallivasal increasing the capacity of each unit from 4,500 K W to 5,000 K. W, and (iii) the installation of an additional 7,500 K W set at Pallivasal

The above works have been completed and the target of 9,000 K. W aimed at in the plan has been achieved.

(2) *Sengulam Hydro-Electric Project* —The Project is a tail water development of the existing Pallivasal Station The water discharged from Pallivasal is led through an open channel 2,000 ft. long into a storage pond from which it is pumped against a head of about 40 ft into a pressure tunnel 5,700 ft long This tunnel discharges into a balancing reservoir of 24 M Cft capacity from which a second tunnel, 10,000 ft long takes off This is followed by a low pressure pipe line surge tank and two penstocks to feed four units each of 12,000 K W The heads on the water-wheels is 1,200 ft The Station is inter-connected with Pallivasal Power Station at 66 K V

The Project has been completed and 48,000 K W of generating plant has been commissioned

(3) *Poringalkuthu Hydro-Electric Project (1st stage)* — This scheme involves the construction of a dam with a storage capacity of 1,200 M Cft across Chalakudy river near Poringalkuthu The water from the reservoir is led through a tunnel 4,000 ft long. Three penstocks, 52" internal diameter each feed a 8,000 K W. set in a power house located on the downstream side of the Poringalkuthu falls The gross head on the turbines is 595 ft The installed capacity is 24,000 K W The Station is connected to the State grid at 66 K V

The scheme had almost been completed at the end of the first plan period

(4) *New Power Schemes* —During the First Five Year Plan period the demand for power rose so fast that the necessity to embark on new power schemes was keenly felt On the basis of a reliable estimate of demand actually registered with the Department of Electricity, it was found that unless new schemes were immediately taken up, the State would face a power shortage by the middle of the Second Five Year Plan period Investigation of new schemes was therefore carried out and execution of the following two schemes was started during the first plan period.

(i) Poringalkuthu Fourth generator (8,000 K W)

(ii) Neriamangalam (45,000 K W.)

The Neriamangalam Scheme contemplates the diversion of the Mudirappuzha river at Kallarkutty and utilising the drop of 650 ft. available for power development. The tail waters of

the Sengulam Power Station together with the run off from 191 Sq. miles of catchment below Munnar are proposed to be utilised in this Scheme

5 *Transmission and Distribution*· Under this scheme 800 new distribution centres were opened and more than 50,000 new consumers have been added.

PROGRAMME UNDER SECOND FIVE YEAR PLAN

1. Power Generation.

28. In the formulation of the Second Five Year Plan Schemes for power generation, the major objective has been that all potential sources of hydro-electric power should be exploited Generation of power has been seen as the pre-requisite for development of industries, so that this necessary form of overhead capital could trigger the development of small-scale industries dispersed over the entire State and thus lead to diversified employment to the people of the State To this reason has to be added the spectacular rise in the demand for power from all classess of consumers in the State

29 The Schemes have been phased in such a manner that capacity develops almost in step with the anticipated load This is evident from the following summary table·—

Year	Anticipated load K W	Initial effective capacity	Name of Scheme commissioned in the year	Addition during the year.	Effective capacity K. W.
1955-56	75,000				68,500
1956-57	95,000	68,500	Poringalkuthu I stage	16,000	84,500
1957-58	129,000	84,500	do II stage	8,000	92,500
1958-59	142 500	92,500	Neriamangalam	42,000	134,500
1959-60	165,500	134,500			134,500
1960-61	210,00(	134,500	Panniar and Sholayar	74,000	208,500

30 The schemes included in the Second Five Year Plan cover generation and distribution of Power Under the former three schemes, namely Pallivasal Hydro-Electric scheme, Sengulam Hydro-Electric scheme and Poringalkuthu first stage scheme are brought forward from the First Five Year Plan The expenditure incurred during the Second Plan period will complete these schemes.

31 The largest among the new projects to be taken up during the Plan Period will be the Pampa Hydro-Electric Project which will be completed only during 1962-63. The first stage of its construction will be begun immediately and for this Rs 220·00 lakhs have been provided in the Plan The Neriamangalam, Panniar and Sholayar Schemes totalling an anticipated output

of 56,200 K W will be almost fully implemented during the plan period. Against a combined total outlay of Rs 976 00 lakhs for the three schemes, Rs 816 27 lakhs have been provided for in the Plan.

32. The Second Five Year Plan anticipates further production of hydro-electric power during subsequent years and for this purpose Rs 21 75 lakhs have been provided for undertaking investigation on new hydro-electric projects

2 Transmission, Distribution and Rural Electrification:

33 In drawing up the proposals for the Second Five Year Plan for Kerala, the long term demand for power has been kept in view and a provision of Rs. 1,118 31 lakhs has been made for taking up new Power Projects and also for completing those taken up under the first five year plan With the completion of the Second Five Year Plan it is expected that 137,000 K W. of additional generating capacity will be added to the system and the ultimate power availability will be 208,000 K W as against the anticipated power requiremnts of 210,000 K W. The transmission, Distribution and Rural Electrification Schemes proposed in this Plan provide for further expansion of the existing transmission and distribution net works to convey to the ultimate load centres, this additional power that would be made available by the completion of the Power Projects

34 With the reorganisation of States it has become necessary to recast the original plan sanctioned for the residuary Travancore-Cochin State with a view to meet the power requirements of the Malabar area which lags considerably behind the residuary Travancore-Cochin State in the matter of power developments There had been considerable restrictions in this area in regard to allotment of power for industrial purposes Though according to the arrangements originally agreed to with Madras for the supply of power to Malabar area the normal power requirements will have to be continued to be met from the Madras grid at the rate of 1000 K W per year till 1960-61 The maximum limit being 10,000 K W considerable difficulty is experienced in getting even this agreed quantum of power from Madras due to their power shortage Under the circumstances, it is considered necessary to make adequate provision in the Kerala Plan for meeting the entire power demand of Malabar area from the Travancore-Cochin grid and a provision of Rs. 216 8 lakhs has been made for Transmission works to be taken up in Malabar With a view to raise the level of development under distribution and rural electrification in Malabar area and to bring it in level with the residuary Travancore-Cochin State a provision of Rs 260 429 lakhs has been made in the Kerala Plan for the above works in Malabar area. A provision of Rs 26 lakhs has also been made for nationalising existing licensees in Malabar area Thus out of the total plan provision of Rs. 2,345 48 lakhs for power developments in Kerala, Rs. 503 229 lakhs is for power developments in Malabar area.

CHAPTER III

SECTOR—III

INDUSTRY AND MINING

1 Industries

11 It has already been pointed out that nearly 54 % of the population in the State mainly depend on agriculture for their livelihood Further, a substantial part of the remaining 46 % who have non-agricultural occupations, have an interest in land and earn a part of their income from agriculture It has also been pointed out that only 38 4 % of the population subsist entirely on non-agricultural occupations But it should be remembered that the various services which are mentioned as sustaining the so-called non-agricultural population are only a superstructure over the inner core of agrarian enterprise. Thus the entire economy of the State revolves round agriculture And at the same time the per capita land under cultivation in the State, which is only 30 cents, is the lowest in India and perhaps in the whole world It is in this background that the need for the rapid industrialisation of the State is to be viewed

12 At present, fishing, coir manufacturing, cashew industry, oil pressing and plantations are the more important industries in the State There are some large factories in the State like the F A C T., the Travancore Rayons, etc., but they are really very few.

13 During 1956 there were 1,349 industrial establishments in Kerala coming under the scope of the Factories Act These factories employed a total of 121,747 workers. Cotton textile manufacturing establishments were the most frequent type of industrial establishment employing on an average 93 workers per establishment. Cashew industry comes next with 164 factories and an average number of 254 workers per establishment The following table gives the number of factories and employment in each type of industry:

Industry.	No of Factories	No. of Workers.	Average No of workers per establishment	Percentage of workers to total workers
1. All Industries	1,349	121,747	90	100.0
2 Cashewnut .	164	41,636	254	34.2
3 Tea	129	5,759	45	4.7
4. Rice Mills	73	1,872	26	1.5

Industry	No. of Factories.	No. of Workers	Average No. of workers per establishment.	Percentage of workers to total workers.
5 Other Food Industries ..	19	1,541	81	1 3
6 Oil ..	69	2,840	41	2.3
7 Cotton Textiles ..	195	18,123	93	14.9
8 Coir ..	138	14,310	104	11.8
9 Saw Mills ..	75	4,246	57	3 5
10 Printing	57	1,900	33	1 6
11 Rubber Estates and Factories ..	61	2,168	36	1.8*
12. Bricks and Tiles	127	10,752	85	8 8
13 Automobile Engineering	43	1,346	31	1 1
14 Other Non-food Industries	199	15,254	77	12 5

14 The main problems which face the State in its bid for industrialisation are·

i Agriculture as a means of livelihood cannot absorb more persons. On the otherhand even now, there are more people subsisting on agriculture than it could accommodate.

ii There are no large-scale industries in the State except a very few. Even in the case of the few major industries now existing, much of the share capital has been contributed by persons outside the State and by Government.

iii Only limited resources are available with the people since capital formation is difficult unless incomes rise higher than at present

iv The supply of skilled workers with sufficient technical 'know-how' is small

v Capital is veritably shy in the State.
This leads to the following aspects:

(a) A greater shift from agriculture to industry is called for if employment opportunities and increase in income levels are to be created fast enough to keep pace with the growth of population;

(b) In the interests of an ultimate goal of high production in a competitive world market, major factory industries which may be capital-intensive cannot be ignored, in spite of the insufficient impression they might create on the immediate employment situation,

(c) If major industry is to develop, sponsoring by the State or active assistance and initiative on the part of the State would be necessary,

(d) Small industries with labour-intensive methods should be encouraged keeping at the same time comparable standards of quality and cost, and

(e) The supply of skilled workers and supervisory personnel with the possession of technical "Know-how" should be the prime responsibility of Government.

5 Against these disadvantages must be weighed the advantages arising out of the facts that the State has sufficient resources by way of cheap water and electricity, supply of efficient and intelligent labour, an efficient transport both on land and over water There is also a large supply of raw materials for starting a number of consumption goods industries as well as some basic industries

6 In our Plan for industrialisation the right approach in the circumstances prevailing in the State, would be to provide the proper balance between large and small industry with (a) the State taking the initiative in major industry even under categories properly belonging to the private sector, if sufficient initiative is not forthcoming from the private sector; (b) the State assisting actively in the promotion of small industries, and (c) the State providing training centres, centres of research into improved techniques and proper marketing facilities

7 We have also to keep in mind the revenue yielding capacity of major enterprises With the limited revenue of the State and with extremely rigid revenue sources, the State is bound to look for fresh sources of revenue Hence investment in industrial enterprises may also be looked upon as an additional source

PROGRESS UNDER THE FIRST FIVE YEAR PLAN

8 The share of Industry in the First Five Year Plan was only 3 7% of the total Plan outlay of Rs. 30 03 crores. A comprehensive and co-ordinated plan for the industrial development of the State was not formulated in this Plan. Consequently the plan schemes under Industries were confined mainly to the Coir Co-operative Scheme,. a survey of small-scale industries, installation of an electric tunnel kiln in the Ceramic Factory at Kundara and improvements to the Kerala Polytechnic at Kozhikode.

9. The Coir Co-operative Scheme envisaged the organisation of 120 primary coir Co-operative societies, 2 central coir marketing societies and 25 societies dealing in raw husk. These societies

were to be given financial assistance by way of grant and loans. The organisation of these societies was completed during the plan period. In addition, another 40 sundry co-operative societies were also organised. Some grants and loans were also given to these societies.

10. The survey on small-scale Industries was conducted during the plan period itself.

11 An amount of Rs. 24 2 lakhs was spent on the construction of new building and purchase of equipments for the Kerala Polytechnic at Kozhikode

12 The scheme for the installation of an electric tunnel kiln in the Ceramic Factory, Kundara, involved construction of buildings, transformer rooms, Time-keeper's Office, well, pump house, overhead tanks, etc. It also involved purchase of machinery from abroad and their erection Work on this scheme was completed during the plan period

PROGRAMME UNDER SECOND FIVE YEAR PLAN

13 The outlay planned for industries of all kinds during the period of the plan is Rs. 683 98 lakhs, forming nearly 8% of the total outlay in the Plan The outlay by the State on major groups of industries will be in the following manner . —

1.	Major Industry—Public Sector	Rs	112 48	lakhs.
2.	Major Industry—Private Sector	,,	23 75	,,
3.	Small-scale Industries	,,	178 38	,,
4.	Coir Development	,,	150 00	,,
5.	Handloom development	,,	160 00	,,
6	Khadi and Village Industries ..	,,	9 81	,,

1 Major Industries.

14 The programme for Major Industries included in the Plan is small for the following reasons.

(a) The Central Government have taken upon themselves the responsibility to promote major industries in the country ; and

(b) The Planning Commission is not in favour of any special pattern of industrial promotion for Kerala, and the allocation of funds for this purpose.

15 Notwithstanding these, the State has taken the decision to assist by way of share capital contribution, loans and all other possible methods of assistance, the setting up of industrial concerns in the State. Large amounts are being earmarked for this purpose in the State budget. These amounts do not figure in the Plan.

16 The private sector also is expected to pay its part in the industrial development of the State by the further expansion of existing units and by the setting up of new ones.

17 A Plan scheme for major industry under the Public Sector is to increase the production of China-clay at the Ceramic Factory at Kundara from 2500 tons to 3500 tons The clay available at Kundara is of very good quality and the increased production is necessitated by the growing demand from various industrial establishments The second scheme relates to the introduction of new lines of manufacture in the Travancore Rubber Works. A target of 6 lakhs units per annum each of Motor tyres and tubes and cycle rims are planned It is also planned to increase the production of cycle tyres and tubes to 12 lakhs units per annum The outlay on these projects will be Rs 28 15 lakhs during the plan period

18 The third major industry coming under the public sector is the establishment of a spinning mill of 24000 spindles at Trivandrum which will meet the requirements of yarn for the large number of handloom textile establishments in the State. The factory will cost Rs 48 05 lakhs

19 The Plan provides financial assistance to the extent of Rs. 4 75 lakhs each in the case of a scheme for a synthetic corundum factory and a sand lime brick factory The third scheme covers Rs 15 0 lakhs as loan to the Travancore Cements for the manufacture of white cement

2 Small Scale Industries.

20 The Plan provides Rs 178·38 lakhs for the establishment as well as strengthening of small-scale industries in the State. The largest block among expenditure on industries in allotted to this sector of enterprise on the recognition that small-scale industries are most suitable to the conditions in the State A scheme costing Rs. 81 95 lakhs for establishing an industrial estate in each of the Districts has also been included in the Plan in the Public Sector

21 51 individual schemes will be implemented during the plan period. These consist of —

(a) Model schemes which extend to existing small scale and cottage industrial units training in the art of using new machines and techniques through demonstrations.

(b) Production centres which will take up manufacture of commodities which have business possibilities, like holdalls, barbed wares, electrical accessories; etc

(c) Training centres where selected number of persons will be trained in particular crafts like production of glass bangles, cloth printing, etc

(d) Production-cum-training centres which combine training schemes with production for marketing. These centres will eventually form full production units under co-operative management of former trainees.

(e) Service centres will be located in industrial estates and other strategic places. The service centres will be fully equipped to meet the industrial servicing requirements of factories around them.

(f) Miscellaneous schemes: These include a scheme of loans and controlled credit to small-scale industrial establishments, aid to industrial co-operatives and industrialists and manufacturing projects attached to institutions under the purview of the Social Welfare Board.

22. An important aspect of the schemes is that most of them are for production of simple consumer goods and as such are expected to yield quick returns

3 Coir Development

23 The Schemes for Coir development are all schemes to develop co-operative organisations at the various stages of coir production and marketing The outlay of Rs 150 lakhs planned for these schemes will be largely utilised as grants and loans, the latter forming over 85% of the total

24 During the Plan period 240 primary societies will be organised to arrange for retting of husks and subsequent production of yarn by their members These societies will be helped in their work by 37 thondu societies who will supply the raw husk to them for retting On the marketing side the primary societies will have the help of 3 Central Marketing Societies who will clear the stock of yarn from the primary societies and sell it

25 It is also planned to introduce the Co-operative system of organisation in the manufacture of final products like mats, ropes, etc , for this purpose 8 Co-operative Societies for the manufacture of mats and mattings and 2 societies for the manufacture of ropes will be organised during the Plan period

26 The necessity for organising unions of the various similar Co-operative Societies cannot be underestimated The Unions help the co-ordination of activities of the societies and thus bring about greater efficiency into them 15 Co-operative Unions are schemed for the Plan period and these will cover the various kinds of co-operative societies in the field of Coir production

27 Provision is being made in the Plan for the increased departmental costs due to the broadening out of the activities in general.

4 Handloom Development

28. Handloom manufacture of cloth is an important industry in the State employing nearly 1 25 lakhs looms with 2 5 lakhs persons dependent on them. Though the industry has been passing through a difficult period, it is recognised that it plays a very important role in the developmental techniques of a country like India.

29. Excluding the scheme for a spinning mill at Trivandrum, the total outlay on handloom development during the Second Five Year Plan will be Rs. 160·00 lakhs. This amount will be directed towards schemes which will energise the existing handloom establishments by way of loans, marketing facilities, service facilities, training, research and extension and organisation of more Co-operatives. The Plan also includes a scheme for starting of handloom Industrial Co-operatives in the Malabar area to match the system of factories in that area employing handloom weavers.

30 Marketing of handloom cloth will be encouraged through a scheme of rebate grants to Weavers' Societies. For this purpose an amount of Rs 55·49 lakhs has been included in the Plan.

5 Khadi and Village Industries

31. The total outlay planned under this head is Rs 59 37 lakhs. The full cost of the various schemes will be met by the Khadi and Village Industries Commission while the expenditure on administration will be financed by the State Government For this purpose Rs 9·81 lakhs is included in the Plan

32. The schemes are mostly related to the development of handicrafts through better training and through organisation of Co-operative Societies of artisans An important scheme in this group will be the organisation of rural industrialisation societies and multi-craft societies of villagers employed in cottage industries The Plan will also include schemes for publicity which will help marketing of the products of village industries.

33. It was stated earlier that industrial training on a large scale is an important precondition to the industrialisation of the State. Schemes for this purpose have been included under ' Labour Welfare'.

CHAPTER IV.

SECTOR—IV.

TRANSPORT AND COMMUNICATIONS.

1 COMMUNICATION.

1 The importance of a system of properly surfaced roads in the economic Development of a country is obvious. The improvement of roads and the construction of new roads should not be thought of as a consequence of economic development, but as a necessary precondition to it. This fact has been recognised from a very distant part especially in the Travancore-Cochin area of the State Taking Kerala as a whole, there is 0 72 miles of road per square mile of area as against the All India average of 0·16 miles per sq. mile The following table gives the road mileage in the State as on 1-4-1956

	Category of road.		*Mileage.*	*% to total mileage*	*Mileage/Sq mile of the area of the State*
1.	All Categories	..	10,739	100·0	0 72
2	National Highways	..	276	2·6	0·02
3	Provisional Highways	..	1,156	10·8	0·08
4	District roads	..	3,873	36 0	0 26
5.	Village roads	.	5,434	50 6	0 36

2 There is a natural need for more roads in the State due to the peculiar feature or detached homesteads situated in a separate plot of land Access to individual homes is facilitated only by small roads so that compared to other parts of India the need for roads is more to connect homesteads and not purely to connect villages.

3 The existence of comparatively larger length of roads per sq mile of area has helped trade and commerce to develop through the inflow of large investments in plantations The roads in the State have served not only to provide quick intercourse between the different parts of the State by the institution of road transport services, but also to ensure the quick transport of the produce of the highland and midland areas to the centres of trade and export

4 In spite of the fact that the State led the rest of India in the mileage of roads per square mile, it was felt that considerable improvement was required if progress in the development of agriculture, trade and industry were to be maintained at a high level. This recognition resulted in the provision of a large programme under communication in the First Five Year Plan

Progress under the First Five Year Plan

5. The First Five Year Plan envisaged the construction of 20 miles of new provincial highways, surfacing of 528 miles of existing roads, construction of 23 major bridges and 999 miles of new village roads with a total financial target of Rs. 258 lakhs. In implementing this plan, actually a sum of Rs 378·32 lakhs was spent on these works, i. e., Rs. 120 32 lakhs more than the target.

Programme in the Second Five Year Plan.

6. The Second Five Year Plan has provided Rs 477·98 lakhs under roads and bridges The scheme for village roads will be executed by the Panchayats Department with a 1/3 voluntary contribution from the local Panchayats and any other private agency or individual

7. The target for roads fixed under the Plan are as follows:

		State and District roads.	*Village roads*
1	Special surfacing ..	312	..
2	Improvement to existing roads ..	639	1,000
3	Construction of new roads .	196	500
	Total	1,147	1,500

8. The scheme under State and District Roads will also include the construction of 95 small bridges and culverts. The financial outlay on the Road Plan will be Rs 244 77 lakhs

9 The Plan also provides for the construction of 83 major bridges at a total cost of Rs 193 21 lakhs.

ROAD-TRANSPORT

10 The provision proposed for Road Transport in the State's Second Five Year Plan was Rs 70 80 lakhs as indicated below.

Rehabilitation of existing Service of Transport Department.	Rs 75 47 lakhs
Expansion of service.	Rs· 82 03 lakhs
Total cost.	Rs. 157 50 lakhs
Share of Railways.	86·70 ,,
Provision in the State's Plan.	70 80 ,,

11. Formation of a Road Transport Corporation is a prerequisite to get the contribution by Railways. It has been decided not to form a corporation for transport as it is not considered beneficial to the State The Planning Commission have agreed to include in the Plan the actual cost of the scheme during the years 1956-57 and 1957-58, which is estimated at Rs 66 50 lakhs. The scheme will however be continued during the rest of the Plan period as a Non-Plan item.

CHAPTER V.

SECTOR V

SOCIAL SERVICES.

The plan aims at promotion of rapid and balanced economic development providing for a larger increase in production, investment and employment Simultaneously, it aims at accelerating the institutional changes needed to make the economy more progressive in terms no less of social than economic ends It touches all aspects of community life and has to be viewed comprehensively Economic Planning thus extends itself into extra economic spheres, educational, social and cultural Importance of social services need therefore, hardly be overemphasised in the context of planning in the State During the First Five Year Plan Rs 300 lakhs, i. e , 10% of the total plan outlay of Rs. 30 03 crores was allotted for Social Services in the State. Efforts were made during this period to expand the Educational, Medical and Public Health facilities in the State to provide adequate housing facilities and to eradicate untouchability and to ameliorate the conditions of the Scheduled Castes, Scheduled Tribes and Backward Classes Encouraged by the success achieved during the First Five Year Plan the programmes under the Second Five Year Plan are made more comprehensive. Thus it acquired greater priority through an allocation of 26 47 % of the total Second Five Year Plan allotment

2. The social services programme included schemes for continued development of educational and medical facilities as well as the advancement of labour welfare, housing facilities and amelioration of Scheduled Castes, Scheduled Tribes and Backward Classes It was felt that the extension of Allopathic medical facilities to every village of the State was neither feasible during the Second Five Year Plan Period nor it was so cheap to suit the pockets of the villagers. The need for recognition of indigenous systems of medicine and development of Ayurvedic Hospitals and Dispensaries was therefore felt and hence this programme is also given due priority in the Second Five Year Plan. The provision of housing facilities for the labourers working in industrial centres is not adequate The construction of houses for them under the subsidised industrial housing scheme is also taken up. Besides the activities under the low income group housing scheme initiated under the First Five Year Plan were to be intensified The programme under social welfare is made still more comprehensive during the Second Five Year Plan by including activities relating to the welfare of women and children, youth welfare and the like. With a view to accelerate the water supply schemes a provision of Rs. 177 53 lakhs has been included under the Second Five Year Plan Further several schemes are included under the after-care programmes of the State for the Second Five Year Plan Period. In order to solve the unemployment and underemployment that face the country during the Second Five Year Plan few schemes are contemplated by Government of India in

developing man-power and employment. The object is to give employment counselling to prospective applicants, to establish youth employment service and collection of employment market information. A general outlook of the various constituents of the social services are given as under :

EDUCATION

3 The Planning Commission views that the system of education has a determining influence on the rate at which economic progress is achieved and the benefits which can be derived from it. Economic development naturally makes growing demands on human resources and in a democratic set up it calls for values and attitudes in the building up of which the quality of education is an important element. In a period of intensive development the resources to be allocated for education and the targets to be achieved are among the difficult issues which have to be faced in drawing up a plan of economic and social development.

4 Kerala leads the rest of India in respect of literacy Nearly 41% of the total population in the State are literate The percentage of literates among those aged five years and over is 47 4 Primary education is universal in the State Towards the end of 1956-57 there were 10,517 educational institutions in the State including institutions for university and collegiate education. 7,073 of these are Primary Schools. There is thus one primary school for 1 25 sq. miles of inhabited area and for about 300 children in the age group 6-11.

5 Under the schemes for educational development in the First Five Year Plan two audio visual mobile units, one adult education training centre and 90 social education centres were started. In the Malabar and Kasargod areas 180 elementary schools, 200 basic schools and 133 single teacher schools were opened. 1534 teachers were given training in basic education

6. Kerala can be proud of its achievements in the field of education It has at present 12,000 educational institutions of various categories and has the highest percentage of literacy among the States in India But it cannot be said that its educational development has been well planned and that we have achieved quality and quantity in the field of education. Many of the schemes included under the Second Five Year Plan are intended to improve the quality of education. It provides for a larger emphasis on basic education, expansion of elementary education, improvement of standards of college and university education, extension facilities for technical and vocational education and the implementation of social education and cultural development programmes.

7. In the field of elementary education, the policy of the Government is to incorporate the better features of basic education with the present system so that a new pattern suitable to the needs and traditions of Kerala can be evolved All training schools will be converted into basic type of schools Emphasis

will be given to vocational bias in Primary Education. In the field of secondary education, Secondary Education Commission has made proposals for bringing out greater variety and comprehensiveness by providing a more comprehensive course which will include both general and vocational subjects. The unilinear character of secondary education has resulted in the problem of unemployment As such it is desirable to have a system of secondary education which offers openings in different directions One of the problems facing the State is the acute unemployment among the educated people. We cannot reverse our process and cease to turn out large number of graduates No artificial embargo can be placed on the entry to University Education What is proposed to be done under the Second Five Year Plan is to divert the youth to more useful channels of employment during the High School courses. Special attention will be devoted to the development of technical education in the State The steps to achieve this object are the establishment of 18 junior technical schools, 4 Engineering Colleges and 6 Polytechnics and the conversion of the existing high schools into multipurpose schools with diversified and technical course of study The supply of tools to every primary school, the construction of community centres attached to high schools will be helpful in creating a vocational bias in children.

8 The total plan outlay under education including collegiate and technical is Rs 1033 42 lakhs.

Programmes under the Second Five Year Plan Period

9 During the Second Five Year Plan Period a provision of Rs 121 00 lakhs is made for the revision of salaries of Primary, Secondary and Hindi Teachers The benefit of the revision of salary of primary school teachers has been extended to the Private sector also The Government of India promised the assistance for the appointment of atleast one full time Hindi Teacher in every Secondary School Nearly 750 full time Hindi Teachers are expected to be appointed during the plan period Further a detailed scheme will be worked out in consultation with the Hindi Advisory Board to impart intensive training to Hindi Teachers after changing completely the present system of training This will involve a total cost of Rs 12·78 lakhs 600 teachers are proposed to be trained

10 The scheme relating to the supply of mid-day meal as applicable to the former Cochin area, to the compulsory education area of Travancore and to certain specified areas in Malabar Government have decided to extend the scheme throughout the State for which a provision of Rs 40 lakhs has been made in the Plan

11. The Secondary Education Commission has stressed the importance of craft teaching in all stages of school education. The success of the introduction of craft in schools depends on the availability of properly trained personnel. It is expected

that 260 teachers in service could be got trained during the Plan at a cost of Rs 0·86 lakhs A provision of Rs. 2 95 lakhs is made under the plan for refresher courses for teachers and annual Seminars.

12 In the course of the Second Five Year Plan Period almost every secondary school will be provided with Audio visual equipments and about 250 teachers will be trained for handling these equipments The scheme also envisages the organisation of two audio-visual mobile units and a film library The total cost of the scheme is Rs. 5 65 lakhs

Primary, basic and middle education

13. As laid down under the directive principles of the constitution children in the age group 6 to 11 was to be brought to schools in a period of 15 years and the emolument was to be raised to 100% during this period and the coverage of age group 11 to 14 wa to be brought to 50% A provision of Rs 90 00 lakhs has been made for constructing buildings required for primary and basic schools (junior and senior) and also for acquisition of sites and construction of wells About 465 new primary schools are proposed to be started during the plan period of which 109 will be privately managed 198 schools will be renovated. 316 junior Basic Schools will be started out of which 206 will be under private management 128 Senior Basic Schools are programmed of which 78 will be under private management It is also proposed to construct about 1070 additional class rooms at a cost of Rs 30 00 lakhs towards provision of buildings consequent on the abolition of shift system in primary and basic schools in the former Travancore-Cochin area

Multi-purpose Schools.

14 23 Departmental and 23 private multi-purpose schools are programmed during the plan at a cost of Rs 85 00 lakhs The object of the above is to convert the 3 year High Schools into 4 year higher secondary and multi-purpose schools with humanities, sciences, agriculture, commerce, home service and fine arts courses.

15. Improvement of facilities for teaching science in the 3 year high schools require more equipments and apparatus The equipments and apparatus will be supplied to 73 Departmental schools while financial assistance will be rendered to 184 private schools to improve laboratory facilities.

16 100 new High Schools, (26 departmental and 74 private,) will be opened during the plan period at a cost of Rs 28 00 lakhs 167 middle schools will be started at a cost of Rs. 26 00 lakhs Rs 14 00 lakhs has been included for providing buildings for middle schools the details of which are given below

New	..	44
Additional		148
Renovation	..	58

17. Many of the High Schools at present do not have adequate accommodation An amount of Rs 28 0 lakhs has been provided in the plan for buildings as detailed below :

Renovation	..	50 buildings
Additional accommodation	..	96 ,,

18. In the plan a provision of Rs 51 44 lakhs excluding the central share of Rs 5 58 lakhs is made for 11 departmental schools which will provide technical courses in subject like elements of electricity and mechanical, civil and radio engineering, textile technology, printing and dyeing (textiles) etc. An amount of Rs 33 72 lakhs is provided for teaching of crafts in schools In basic training schools and in places where it is difficult to get residential accommodation such as High Ranges and out of the way places, 200 blocks of quarters will be provided for teachers at a cost of Rs 18 88 lakhs.

Special, Basic training and Residential Schools

19. Five schools will be started for the handicapped, Deaf, Dumb and the blind, at a cost of Rs. 7 16 lakhs. The existing training schools will be converted into basic type for providing training in basic education for both teachers and non-teachers. Rs 15·28 lakhs has been provided in the Plan for this scheme 3 residential multi-purpose higher secondary schools will be started in Kerala The financial target for the above is Rs 15 lakhs

20 One post-Graduate basic training college has been started at Rama Varmapuram during 1956-57 to provide training to 50 persons When sufficient accommodation is made available, training facilities will be given to 80 students The cost of the scheme is Rs 4·89 lakhs.

Nursery Schools

21. A provision of Rs 10 lakhs has been made for the starting of 200 schools It is intended to encourage private agencies and Panchayats for starting Nursery Schools

22 One Nursery training school has been started at Alleppey during 1956-57 The aim is to train teachers for nursery schools proposed to be started during the plan period An amount of Rs 0 30 lakhs has been made in the plan for this purpose

Miscellaneous Schemes

23. A scheme has been worked out for the medical inspection of all school going children in standards I to V The scheme will come into force in 200 selected centres in the State at an estimated cost of Rs 5 70 lakhs.

24 Rupees 12 86 lakhs has been provided in the Plan for the introduction of 100 troops under National Cadet Corps and Rs 3 79 lakhs for 210 troops under Auxiliary Cadet Corps.

25 In order to encourage the scout movement it is proposed to enhance the grant to Bharath Scouts and Guides Association. Rs. 4 00 lakhs is provided in the plan for the payment of grants

to cultural institutions (Dance, Drama and Music Institutions) run by private agencies and Rs 2·87 lakhs towards the payment of grants to important sports and games associations and clubs 100 books are proposed to be produced and added to the series of books on childrens' literature during the Five Year Plan period. 10000 copies of each book will be printed and distributed free to schools and libraries with children's sections. The work will be undertaken by the Sahitya Academy at a cost of Rs. 1 42 lakhs. Rs. 0·24 lakhs is provided in the plan for the purpose of issuing educational publications, magazines and bulletins without charging any price

26. In the course of the Second Five Year Plan a model regional theatre will be put up It is also proposed to start a State Bureau of Educational and vocational guidance to impart training to Guidance Officers and the intention is to post one Guidance Officer to each secondary school. These Guidance Officers will render necessary assistance to parents and students to choose their vocation according to aptitudes It is expected that 150 such guidance officers will be trained during the plan

27. In the field of fine arts, 4 music academies of the standard of the Swathi Thirunal Music Academy, Trivandrum will be started during the plan period One Drawing and Painting School has already been started at Mavelikara during 1956-57 for giving instructions in drawing, painting and modelling One Dance School will be started at an expenditure of Rs 1·98 lakhs and the construction of an auditorium in Trivandrum Music Academy will cost Rs 0 47 lakhs A Bureau of education with a library and a research section will be started in the office of the Director of Public Instruction at a cost of Rs. 2·49 lakhs. The Trivandrum Public Library will be converted into a State Central Library at a cost of Rs 6·93 lakhs. For the construction of at least a stadium in each District of the State Rs 3 50 lakhs has been made 'in the Plan towards the States share.'

28 The production of text books has been nationalised in the State. It is proposed to establish a Government Press for Printing Text books etc at Shornur at a cost of Rs 5·00 lakhs Rs 3 11 lakhs has been provided in the plan for constructing Permanent Stores and Offices at 4 centres for the sales of text books and other publications

Collegiate Education.

29. The total outlay proposed for Collegiate Education is Rs 108·76 lakhs Of this, the matching contribution of Rs 14 25 lakhs has been provided in the plan, while the rest of the amount will be provided by the University Grants Commission and the gap, if any, will be covered by the University from its own funds.

30. The schemes included in the Plan may be grouped into:—

(i) Strengthening the teaching facilities in existing Colleges
(ii) Starting new Colleges.
(iii) Expanding Hostel accommodation.
(iv) Building and works programmes

31. Under the schemes for strengthening teaching facilities are those for starting a Research Department in Chemistry as well as post-graduate courses in Physics and Botany in the Maharaja's College, Ernakulam. Post graduate classes for more subjects will also be started in the Victoria College, Palghat Degree courses in science subjects are planned to be started in Government College, Chittur and the Government Brennan College at Tellicherry.

32. One Government College in each of the Districts of Palghat, Kozhikode and Cannanore is scheduled to be started during the plan period Besides these, a Physical Education College at Kozhicode and a Training College at Tellicherry will also be started.

33 The existing hostel accommodation for men and women students is insufficient in almost all Colleges During the Plan period it is proposed to expand hostel accommodation in the Maharaja's College, Ernakulam and Government Training College, Trichur

34. In addition to the requirements for new buildings and other works connected with the schemes for extending hostel accommodation, the Plan contains schemes for the college and hostel buildings as well as for laying out play grounds for the Physical Education College at Trivandrum Hostel buildings at Government College, Chittur and new buildings for the Government Brennen College at Tellicherry also form part of the schemes for buildings.

Technical Education.

35. Lack of trained personnel is most often a serious bottleneck in the development of an economically backward region All developmental activities are dependent on technological development This fact is recognised in the scheme for developing facilities for technical education in the State The Second Five Year Plan provides Rs. 237 19 lakhs for developing technical education.

36. A Central Polytechnic will be established at Trivandrum. A Polytechnic in the public sector has also been sanctioned for the State which will be located at Cannanore In view of the industrial importance of the surrounding area it is also proposed to start training in Textile Technology in that Polytechnic. A Polytechnic has been started at Quilon in the private sector In 1958-59, 3 more Polytechnics will be established by private agencies one at Pandalam, the other at Alleppey and the third at Triprayar It is also proposed to upgrade and expand the following Polytechnics.

1. Maharaja's Technological Institute.
2. Government Polytechnic, Kalamassery.
3. Polytechnic, Kozhicode.

For providing technical courses, 18 Junior Technical Schools will also be established in the State.

37. The second Engineering College will be established at Trichur with the assistance of Government of India. Two more Engineering Colleges will be established in the private sector, one at Quilon and the other at Palghat or Cannanore. Besides the normal expansion of the Engineering College, Trivandrum i e., increasing the in-take from 100 to 210, 3 post graduate courses will be started, viz, Irrigation Hydraulics and Flood Control, Electrical Machine Design and Structural Engineering As the present location of the Engineering College, Trivandrum is unsuitable for any further expansion, it has been decided to shift it to Kulathur about 4 miles from Trivandrum The financial target of schemes relating to Engineering Colleges in the Plan is Rs. 56 00 lakhs.

38. A sum of Rs 4 47 lakhs has been provided for the expansion of Kerala Polytechnic at Kozhicode An Industrial School at Cannanore has started functioning recently. Rs 14·48 lakhs has been provided in the Plan for conducting certificate courses in 12 subjects in the above school

39. During the First Five Year Plan there were proposals to organise 3 Occupational Institutes at Trichur, Trivandrum and Nagercoil In 1953 an Institute was formed at Trichur The scheme in respect of the Occupational Institute in the Second Five Year Plan is a continuation of the First Five Year Plan.

40 The Technical Education Committee appointed by Government have in their report recommended that immediate steps should be taken to improve the facilities for instruction and demonstration in arts, crafts and handicrafts in the State It was therefore proposed to improve the instructional facilities in the Government Occupational Institute, Trichur Structural alterations of the existing buildings of the Institute are necessary and modern equipments are also to be installed With these objects in view, a sum of Rs. 3 27 lakhs is included in the Second Five Year Plan

HEALTH

41 The Planning Commission is of the view that the general aim of health programmes during the Second Five Year Plan is to expand existing health services, to bring them increasingly within the reach of all the people and to promote a progressive improvement in the level of national health

42 The specific objectives are.

1 establishment of institutional facilities to serve as bases from which services can be rendered to people ;
2 development of technical man power through training programmes and employment of persons trained,
3. as the first step in the improvement of Public Health, institution of measures to control communicable diseases,

4. an active campaign for environmental hygiene, and
5 family planning and other supporting programmes for raising the standard of health of the people.

43 Kerala State is one of the earliest in India to recognise the importance of modern medicine and to bring its benefits to the people

44. The State can now boast of 53 hospitals, 198 dispensaries and 12 specialised institutions for the treatment of insanity, tuberculosis, leprosy, etc, with a total bed strength of 9,338 There are also 56 grant-in-aid and subsidised and 14 non-subsidised institutions. There is one Medical Institution for about 43,000 people, one doctor for 7,000 people, one nurse for 19,000 people and one bed for 1,400 people The table below gives the important medical statistics of the State for 1955-56

	Particulars	*Numbers*
1	Hospitals	53
2	Ophthalmic Hospital	1
3	T B Sanatoriums	3
4	Mental Hospitals	3
5	Leprosy Hospitals	5
6	Public Health Institutions	61
7	Maternity and Child Welfare Centres	442
8	Grant-in-aid and subsidised Medical Institutions	56
9	Non-subsidised Medical Institutions	14
10	Total Bed-strength in Government Institutions	9,338
11	Total Bed-strength in Private Institutions	1,608
12	Inpatients treated in Government Institutions	2,84,895
13	Inpatients treated in Private Institutions	23,004
14	Outpatients treated in Government Institutions	72,30,723
15	Outpatients treated in Private Institutions	2,64,351

Progress under the First Five Year Plan.

45 The 'Health' schemes included in the First Five Year Plan can be summarised as follows:

1 Medical College Scheme
2 Ayurveda College Scheme
3 Hospitals and dispensarie under the Medical Department.
4. Hospitals and dispensaries under the Ayurveda Department
5. Water Supply and Drainage
6 Antimalaria Scheme.
7. Other Schemes.

46. The Medical College scheme envisaged the construction of the Medical College building, the Medical College Hospital, 2 men's hostels, 1 women's hostel, 2 nurses hostels, 191 quarters for staff and other ancillary buildings, admission of 500 students, accommodation to 450 students in hostels and the provision of equipments worth Rs 15 lakhs

47. Except for the construction of quarters for staff in the Medical College the targets in all the other fields have been achieved

48. The achievements in the other schemes during the plan period may be summarised as follows ·

1.	New Dispensaries opened	30
2	Major Hospitals provided with equipments	3
3	Number of beds added in Malabar area	134
4	Leprosy clinics opened .	3
5	Number of medical officers trained .	11
6	Number of Nurses trained. .	178
7	Number of Maternity Assistants trained	74
8.	Number of compounders	41
9	Number of Primary and Secondary Health centres opened ..	40
10	Number of Malaria control units established	2
11.	Number of Filaria Survey Unit ..	1
12	Number of Maternity and Child Welfare Units started	138
13	Number of Midwives and Health Inspectors trained	247
14	Number of Deep Tube wells dug	2

Programmes under the Second Five Year Plan
Medical.

49. The Second Five Year Plan aims among other things at developing the existing medical service into a more efficient machinery to meet the requirements of a growing and enlightened population The emphasis is not so much on multiplying the number of institutions as on consolidation since the field will be served by private practitioners as also by other systems of medicine.

50 Rs 321 29 lakhs has been provided for Medical Sector under the Second Five Year Plan for the following programmes excluding Medical Colleges.

Starting of new dispensaries and Improvement of Medical Institutions.

51 A provision of Rs 159 10 lakhs has been made under the plan for starting new dispensaries and clinics and for the improvement of the existing medical institutions Rs. 16·52 lakhs has been allotted for starting 50 dispensaries, Rs. 3·00 lakhs for

opening of 5 dental clinics in the District Head Quarters Hospitals in the State and Rs 5 00 lakhs for opening 5 V. D Clinics in the District Hospitals Additional wards in 121 dispensaries will be constructed at a cost of Rs. 16 78 lakhs. The X-ray Department of the Medical College has to be expanded with the provision of a Cobalt X-ray Unit at an expenditure of Rs. 7 00 lakhs In 57 Medical institutions, quarters will be constructed for Medical Officers, Nurses, Midwives and Compounders at a cost of Rs 21 40 lakhs Rs 55 50 lakhs is provided in the plan to increase the bed strength and to provide better equipments and facilities in 8 Major Hospitals in the State It is desirable that the Taluk Head Quarters Hospitals should each have atleast 50 beds with medical, surgical and maternity sections and an up-to-date operation theatre. The intention is to extend these benefits to 15 medical institutions of the State at a cost of Rs 28 90 lakhs. The provision of the above facilities will not only improve the standard of treatment but also enable to serve as secondary centres for serious cases sent by Primary Health Centres to be opened in Community and National Extension Service Blocks Rs. 5 00 lakhs has also been provided in the plan for improvements to the Mental Hospital, Kozhicode

Leprosy Relief

52 Rs 52 05 lakhs has been provided under the Second Five Year Plan for the purpose of leprosy relief in the State The programme under this will be as follows

(1) To increase the bed strength of the Leprosy Hospitals by 820 and to establish a leprosy clinic at Chevayur at Kozhicode at a total cost of Rs 29 00 lakhs

(2) In order to fight out leprosy the Government of India have proposed the establishment of a number of pilot projects for control of leprosy by the application of intensive mass treatment method in certain areas which are endemic in leprosy and simultaneously with mass treatment to undertake health education on the infectivity of the disease and its prevention It is proposed to open 11 such centres where there is high incidence of the disease The scale of assistance now being given to private bodies will be increased The estimated cost of Rs 23 05 lakhs is provided for the purpose

Tuberculosis Control

53. Rs 89 06 lakhs has been provided in the plan for increasing the bed strength in the Tuberculosis isolation wards by 630 and 804 in the existing T B Hospitals of the State including the T B. Hospital at Pariaram in Cannanore District 11 T B Clinics are also proposed to be opened in the State during the plan period

Miscellaneous Schemes.

54 A provision of Rs 21 08 lakhs has been made in the plan for training programmes, provincialisation of Doctors in Local Fund and Municipal Institutions, establishment of a Paediatric Centre in the Medical College, starting of a Dental College, construction of isolation blocks etc.

Medical Colleges

55. The Medical College at Trivandrum was started during the First Plan period The scheme consisted of the construction of a college to admit 100 students each year for the M B B S Course, a Nurses School to admit 40 students a year with quarters and hostels, and a medical college hostel For the expansion of the scheme a sum of Rs 47 50 lakhs is provided in the Second Plan.

56 As the Medical College, Trivandrum cannot train sufficient number of Doctors to meet the needs of the People of Kerala, another Medical College at Kozhicode has been started from the second year of the plan The District Hospital at Kozhicode will also be suitably expanded to serve the Medical College The cost of the scheme is Rs 50 00 lakhs.

57 The schemes relating to Medical Colleges at Trivandrum and Kozhicode are centrally sponsored, the total central share being Rs 43 41 lakhs

Public Health

58 The State has taken vigorous steps in the past to promote the health of the people The Public Health Department had a very limited programme in the First Five Year Plan. This related to registration of births and deaths in a limited area, training of Public Health personnel, starting of a few rural water supply projects and a scheme for extension of Malaria control and Filariasis control activities It is proposed to make a more comprehensive approach to health problems during the Second Five Year Plan period for which a provision of Rs 241 85 lakhs has been made under the plan

Establishment of Primary and Secondary Health Centres

59. Rs 56 73 lakhs is provided in the plan for the opening of 90 Primary Health Units to look after both preventive and curative work Certain Government Hospitals at Taluk Head Quarters will be converted into Secondary Health Centres in the plan period at a cost of Rs 16 95 lakhs

Maternity and Child Welfare.

60 18 Maternity Homes at Taluk Head Quarters with 20 beds each will be started at a cost of Rs 17 00 lakhs In order to provide maternity and child health centres in every village 320 M C H Centres will be started at an estimated expenditure of Rs 28.67 lakhs.

Training Facilities

61. As no programme for improving the standard of Public Health will be successful without sufficient number of trained personnel, it has been decided to train 452 Midwives, 50 Family Planning Health Visitors and to impart training to 4 Lady

Doctors in D M. and C. W Courses and to give refresher courses for 250 Midwives and training for general health work for 77 Health Visitors at a cost of Rs 6 60 lakhs.

B C. G Vaccination.

62 The activity is proposed to be intensified during the Second Five Year Plan Period There are at present 4 teams attached to this Scheme not fully staffed The cost of the scheme is Rs 8 71 lakhs.

National Malaria and Filaria Control.

63. The Scheme is to eradicate Malarial and filariasis diseases from the State At present there are Malaria Control Units at Trivandrum, Kozhicode and Trichur One more Control Unit will be opened at Palghat. It is also proposed to establish 9 hypoendemic Units one in each District of the State and 2 Filariasis Survey Units and 10 Control Units Under the Malaria eradication programme it is proposed to carry out intensive anti-malaria programme at both endamic and hypo-endamic areas The total Plan provision for the programme is Rs 57 40 lakhs

Family Planning.

64 An innovation is being made in introducing a scheme for advising and aiding in family planning in the State 70 Family Planning Centres are proposed to be started in various parts of the State at a total cost of Rs 9 00 lakhs

Miscellaneous

65 Provision is made in the Plan for School medical Inspection. Under environmental hygiene it is proposed to provide 3500 R C Slabs for distribution to bonafide users

66 It is intended to have health education teams, one in each District of the Malabar area at a cost of Rs 1 50 lakhs There are such teams already working in the other areas of the State. Four District Maternity and Child Health Organisation will also be started during the Plan at a cost of Rs 3.23 lakhs.

67 In order to achieve drastic improvement in the standard of reporting of births and deaths a sum of Rs 10 21 lakhs is allotted in the Plan.

68 A sum of Rs. 1 85 lakhs is provided in the Plan to increase the staff required to attend to the increased work consequent on the implementation of Plan Programmes Finally Rs 7 75 lakhs is allotted for the improvement of the Public Health Laboratory at Trivandrum.

AYURVEDA

69. For centuries Ayurvada as an efficient system of medicine has flourished in Kerala, under the patronage of royalty and commoners alike. In spite of criticism levelled against Ayurveda by exponents of modern medicine, the system has continued to be popular. During 1956 there were 22 Ayurvedic Hospitals and 94 Dispensaries in the State run by Government. There were also 7 Taluk Visha Vaidyasalas The grant-in-aid institutions numbered 275 of which 3 were Hospitals and 272 Dispensaries. Besides these, there were 29 subsidised and 5 non-subsidised Ayurvedic Institutions in the State

70 During the First Five Year Plan, 8 hospitals and 40 dispensaries were started in various parts of the State The scheme for an Ayurveda College was also part of the First Plan though the completion of it was carried over to the Second Plan This scheme envisaged the completion of the college building and the starting of degrees and diploma courses.

Programme under the Second Five Year Plan.

Ayurveda College

71 The Ayurveda College scheme which started during the First Five Year Plan will be completed during the Second Five Year Plan period During this period a maternity block, Research block, Pharmacy block and X-Ray block will be added to the College. Residential accommodation for 400 students will also be provided A Botanical Garden of medicinal herbs will be established at Poojapura or Thirumala. A refresher course to train up the Vaidyans is also proposed to be started during the Second Five Year Plan period. An amount of Rs 19 52 lakhs has been provided in the Plan to meet the expenses of these schemes. The Clinical Research Station started as a part of the Ayurveda Hospital will be separated and run as a separate section under a Research Professor. The entire cost of this scheme will be met by the Central Government.

Ayurveda Department

72. It is proposed to re-organise the S K V. G. A. Pharmacy at Trichur on a co-operative basis in order to relieve the scarcity of Genuine Ayurvedic medicines which has lead to unhealthy competition in the open market. A sum of Rs 5·0 lakhs has been provided in the Second Five Year Plan for this Scheme.

HOMEOPATHY

Programme under the Second Five Year Plan

73 A Homeopathic College and Hospital are proposed to be started during the Second Plan period This scheme is estimated to cost Rs 7 00 lakhs This is a centrally sponsored scheme.

74 An amount of Rs. 0 48 lakh excluding the Central share of Rs 0·47 lakh is however provided in the Plan as a Token grant for the encouragement of Homeopathy, Unani etc.,

RURAL WATER SUPPLY

75. In spite of the fact that the State has good rainfall with a fairly large number of rivers and sub soil strata at reasonable depths, there is acute shortage of good drinking water in several parts of the State. The reasons for this paradox is :

(1) The increasing growth of population in towns has rendered the supply from ordinary draw wells inadequate.

(2) In certain towns where water supply system exists, the population has outgrown the capacity of the systems.

(3) The increase of brackish water renders the wells and tanks un-wholesome in summer

(4) The heavy density of population throughout the State renders protected water supply even in some urban areas essential from the point of view of Public Health.

76 An amount of Rs 177·53 lakhs has been provided in the Second Five Year Plan for the successful implementation of the Schemes included under "Rural Water Supply".

77. Under the scheme "National Water Supply and Sanitation Project" it is proposed to supply drinking water to the Coastal and Kuttanad areas through pipes from sources like deep tube wells and perennial surface wells. From 1958-59 onwards, it is also proposed to establish latrines, about 10,000 per year, in the entire coastal area of Kuttanad, leading to better hygeine in the area.

78 To extend the benefits of adequate supply of fresh water to rural areas it is planned to construct about 200 tube wells during the Plan period. The investigation of water supply schemes in rural areas in Malabar is yet another item of work which will be implemented during the Plan period. Two other Water supply schemes proposed to be started during the Plan period are (i) the Ottapalam Water Supply Secheme and (ii) the Palghat Water Supply Scheme. The Ottapalam Water Supply Scheme is to be designed for an ultimate population of 25000 in 1961 with a rate of supply of 10 gallons per head per day Similarly the Palghat Scheme is for an ultimate population of 120,000 in 1961 with a rate of supply of 15 gallons per head per day. As the present supply of water in Kozhikode is not sufficient for the working of the Kozhikode Drainage Scheme, it is proposed in the Second Five Year Plan period to investigate methods for the enhanced supply of water in Kozhikode Separate provision is made to meet the increased cost of materials. For the maintenance of Tools and Plants and for the replacement and purchase of new equipments, funds are provided in the Second Five Year Plan. For the successful execution of the Plan schemes included in the Second Plan period, it is proposed to appoint necessary staff at all levels.

HOUSING.

Programme during the Second Five Year Plan period.

79. A total amount of Rs. 206 53 lakhs is planned to be spent under the Second Five Year Plan on "Housing". The industrial housing scheme proposes the construction of single storeyed one-roomed, single storeyed two-roomed, double storeyed one-roomed and double storeyed two-roomed buildings These buildings will be given on rent to those workers coming under the purview of the Factories Act 1948 and Mines Act of 1952 and Workers employed in corporations and companies fully or partially owned by the Central or State Government. Under the low income group housing scheme, Government of India propose to give long term loans to persons having incomes not exceeding Rs 6,000 per annum through the State Government for the purpose of building houses It is also proposed to start co-operative housing societies purely on loan basis which will take up Urban Housing Schemes and Rural Housing Schemes. The Second Five Year Plan provides in addition, facilities for constructing houses for the employees of the Local Bodies whose monthly income is Rs 100 or less, by advancing loans to the Local Bodies The Poor Housing Scheme included in the plan is intended to provide houses and house sites to agricultural labourers, fishermen, municipal menials, scavengers, sweepers and other labourers Under settlement scheme it is proposed to give 5 cents of land in urban areas and 10 cents in rural areas to each settler along with a sum of Rs 250 towards the cost of building materials and a monetary grant of Rs 50. The settlers are expected to build their houses according to type designs approved by Government. The scheme is intended for the people in the lowest income-group in the State The plantation labour housing scheme contemplates assistance to planters possessing plantations below 500 acres for the construction of tenements for the resident plantation workers governed by the Plantation Labour Act, 1951

80 The State Government have agreed to the slum clearance programme sponsored by the Government of India and this has been included in the Second Five Year Plan. The Village Housing Project Scheme sponsored by the Government of India is intended to give loans through the State Government to residents of selected villages or co-operatives of such persons for building houses on "an aided self-help basis". The loan assistance is limited to 50% of the estimated cost of construction of a house (excluding cost of land) subject to a maximum of Rs. 1,500

WELFARE OF BACKWARD CLASSES.

Progress during the First Five Year Plan.

81 A sum of Rs 74 lakhs was earmarked for amelioration of backward communities in the First Five Year Plan During this period 68 Harijan Welfare schools were newly opened in the State ; 6 Government hostels exclusively for scheduled caste were built ; 60 wells and 45 multi-purpose cement platform were constructed : 4 Mobile Medical units were started and 1 Welfare centres and 4 colonies were newly opened, 12 Educational-cum-technical institutions were newly started Scholarships were awarded to a total of 6,338 students.

Programme under Second Five Year Plan.

82 *Welfare of Scheduled Tribes*· An amount of Rs 36·80 lakh has been provided in the Second Five Year Plan for the welfare of scheduled tribes The proposal is to improve their condition in the fields of education, medical and public health, cottage industries and co-operative movements

83. During the plan period, it has been decided to grant educational concessions to 2,350 tribal students, to maintain 38 tribal schools, to open 15 new schools, to supply mid-day meals to 500 students and to sanction 600 boarding grants The two mobile medical units already established during the First Five Year Plan period to give medical aid to tribal patients are proposed to be continued during the second five year plan period al o In addition to this, wells will be sunk for the supply of water I is also proposed to maintain the existing model welfare centres and to open 26 new centres during the Plan period so as to impart training and education in the fields of Cottage Industries and adult education. During the Plan period, schems to construct 961 houses and also to settle 964 tribal families in Attapady valley of Malabar area and arandan families in Kozhikode District will be implemented A scheme to organise 18 tribal co-operative societies and 2 work centres in cottage industries in order to educate the tribes on the advantages of co-operative movements will be taken up and completed during the period

84 *Welfare of Scheduled Castes*:--A sum of Rs 142·79 lakhs is allotted for the welfare of scheduled castes in the Second Five Year Plan. This amount will be spent on activities for the up lift of scheduled castes A major portion of the allotted amount is proposed to be kept aside for the running of Pial Schools Harijan Welfare Schools and for the grant of educational concessions to scheduled caste students in the various colleges and schools. During the plan period 129 schools and 3 hostels along with 1,461,867 educational concessions for pupils in Lower Primary classes and 3,987 boarding grants will be made available Separate provision is also made for the continuance of the existing propaganda unit for the eradication of untouchability This unit will have a well equipped film unit attached to it which will help considerably in developing attitudes required for the removal of untouchability. It is proposed

to give grants to hostels and social organisations engaged in the propaganda work and to give rewards to persons who have done meritorious work for the removal of untouchability The construction of hygienic and cheap houses for harijans and provision for wells, latrines, burial grounds, etc., in the Harijan colonies are the various other schemes included in the Second Five Year Plan under this head It is proposed to construct 2,294 houses for Harijans during this period Additionally it is expected to sink 270 wells, construct 190 latrines and provide 45 burial grounds and appoint 16 health visitors. In addition to this it has been decided to acquire 1,036 house sites to settle 4507 families.

85 *Welfare of Backward Classes* —Schemes costing Rs 40·97 lakhs have been included in the Second Five Year Plan for the welfare of backward classes This amount will be useful in giving scholarships to 2,500 students and boarding grants to 1950 students. Provision is also made for the maintenance of the existing schools and to construct additional buildings for these schools In order to stimulate economic activity it has also been decided to give grants to backward community families for the purchase of agricultural implements, seeds, seedlings, etc

86 *Social Welfare Extension Projects* —The object of the Social Welfare Board is to undertake organised social welfare activities, to promote family welfare schemes in urban areas and to undertake other social welfare schemes for the children, the women, the physically handicapped and the delinquents. These objects are being achieved by the establishment of Social Welfare Extension Projects Each project comprises 7 welfare centres All the Centres are arranging for feeding 400 children at each centre out of UNICEF rice and also milk

87 The State Social Welfare Board has no new schemes to work out during the Second Five Year Plan; but the schemes already started will continue Twenty-eight projects have been sanctioned by the Central Board of which 18 projects have been started Opening of additional projects depends on the availability of local support The State's share of expenditure on the programme is Rs. 9 76 lakhs This has been provided in the Plan

SOCIAL AND MORAL HYGIENE AND AFTERCARE PROGRAMME.

Programme under Second Five Year Plan.

88 An amount of Rs 20 73 lakhs has been provided in the Second Five Year Plan for social and moral hygiene and aftercare programme. During the plan period, it is proposed to start after-care shelters, rescue shelters, one after-care home and one rescue home. These after-care shelters are intended for temporary accommodation of discharged men from correctional institutions like Jails, Reformatories, etc , pending transfer to the State Home Similarly rescue shelters are intended for rescued women from where they are transferred to the rescue home later.

The object of the aftercare home is to give training to such discharged men in craft and trades with a view of setting them in gainful employment and useful trades. The women in the rescue home will also be trained in suitable crafts It is also proposed during the plan period to start care homes for disabled children, remand homes and courts for juveniles, clubs and parks for children and shelters for waifs and strays The disabled children in care homes will be trained in industries and they will also be given facilities for education. Remand homes are intended to lodge juveniles in custody undergoing invenstigation or trial on criminal charges so that they may not be lodged in ordinary jails or lockups Juvenile courts are intended for trying juvenile offenders During the plan period, it has been decided to appoint Honorary Probation Officers in all the districts and a chief Probation Superintendent at State Headquarters Probation permits a more normal social life and experience than institutionalisation as it prevents the destruction of relationship with family, friends or occupation It has also been decided in the Plan to start Borstal Schools to detain adolescents convicted by courts.

89 The after-care home at Trivandrum and the rescue home at Ernakulam have already started functioning Three after-care shelters have been started at Trichur, Cannanore and Kozhikode and proposals for starting four rescue shelters at Trivandrum, Kottayam, Alleppey and Palghat have been accepted Two more shelters are proposed to be started, but the centres to locate these have not been yet fixed. It is proposed to start an after-care home in Malabar area also Two care homes are proposed to be started, one each at Quilon and Trichur, having an accommodation of 25 inmates per home The Remand homes are proposed to be started at Trivandrum, Quilon Alleppey, Ernakulam, Palghat and Cannanore A Borstal School is proposed to be started near Trichur Proposals for starting juvenile courts at Trivandrum, Ernakulam, Trichur, Quilon, Kottayam, Alleppey Palghat and Tellicherry have been included in the Second Five Year Plan During the Plan Perid, it has been decided to start clubs and parks for children at all district headquarters except Trivandrum. It is also provided in the Plan to start new shelters for waifs and strays at Kozhikode and Ottapalam.

INDUSTRIAL TRAINING CENTRES.

(CRAFTSMEN TRAINING.)

Programme under the Second Five Year Plan.

90. In accordance with the policy and standards prescribed by the Government of India, the State Government will organise Industrial Training Programmes throughout the State The State Government will take effective steps to organise full length apprenticeship programme, to set up a State Board or *adhoc* local committee affiliated to the Central Board to co-ordinate the overall training programme in the State and to conduct examinations, and to maintain an advisory committee for advising the State Government in the selection of trades in which training should be imparted and also in the selection of candidates.

91. The schemes included in the Second Five Year Plan include the Industrial Training Institute at Trivandrum, the Industrial Training Institute at Chalakudy, the Industrial Training Institute at Cannanore and also Apprenticeship Training Schemes The training capacity of the Institute at Trivandrum has now been increased to 400 seats and it will be raised to 512 seats by the Third Year of the Plan The strength of the Institute, at Chalakudy has been raised to 250 and it will be further increased to 400 The Institute at Cannanore has at present 144 trainees and it will be raised to 400 during the third year of the Plan. The Apprenticeship Training Scheme has been introduced at Fort Cochin By arranging evening classes in Technical Institutes or in the premises of the Industrial Institutes it is intended to improve the theoretical knowledge of the workers. 25 workers will be given training and it is proposed to start the classes at Trivandrum and Kundara.

92 The total cost of the above scheme is Rs 68 lakhs. These are centrally sponsored schemes, the Central share being Rs. 40·8 lakhs The balance of Rs. 27·2 lakhs which is the State's share, has been included in the Second Five Year Plan

NATIONAL EMPLOYMENT SERVICE.

93 A provision of Rs 3 44 lakhs has been made in the Second Five Year Plan to meet the requirements of the schemes formulated under the National Employment Service. It is proposed in the Plan to utilise this amount in the most economical way in order to facilitate the employer to get the right man for the right job and the employee to get the best job to which he is best suited

94 It is proposed to expand the existing Employment Exchanges so as to keep the employment officers in close contact with the employers of the Districts and help the employment seekers of the locality to get the assistance of the National Employment Service without difficulty For the efficient working of the National Employment Service it is proposed in the Plan to eatablish units in all the Employment Exchanges for the collection of Employment Market Information. These units will work out the number of employees employed in each of the private and Government undertakings and the number of vacancies that are likely to arise in the near future The establishment of youth Employment Service in all the Employment Exchanges is a programme included in the Plan to direct and advise youths in Schools and Colleges to choose the proper course of study and occupation suitable to their tastes and aptitudes In order to avoid malutilisation of man-power potentialities, for example, qualified technicians sometimes undertaking unskilled Jobs, it is proposed in the Second Five Year Plan to establish separate Employment counselling at all Employment Exchanges to give proper vocational guidance to such employment seekers.

THE EMPLOYEES STATE INSURANCE.

Programme during the Second Five Year Plan Period.

95. The scheme provides medical benefits to the insured persons by way of general out-patient treatment in dispensaries and specialist treatment inclusive of laboratory and X-ray examinations with special arrangements for the treatment of general diseases, tuberculosis, maternity cases, etc With the introduction of cash benefit from July 1957 the scheme has become more popular. New activities like the extension of the scheme to new extension of the benefit to the families of the insured, introduction areas, of Ayurvedic treatment for the insured and the construction of permanent E S. I Dispensary buildings, are contemplated in the Second Plan and these are expected to be taken up from 1958-59 onwards The extension of the benefit of the scheme to the families is bound to add to the prestige and importance of this valuable welfare service during the Plan period

96 The total estimated cost during the Second Five Year Plan period for the employees State Insurance Scheme will be nearly Rs 75 10 lakhs The contribution of the State Government in respect of this scheme will be Rs 11 80 lakhs and the remaining Rs. 63·3 lakhs will be met by the Corportation

CHAPTER VI

SECTOR VI

MISCELLANEOUS

PLANNING STATISTICS

PROGRAMME IN THE SECOND FIVE YEAR PLAN

Planning Cell.

A sum of Rs. 9·50 lakhs has been included in the Second Plan for Planning Statistics This amount will be spent for the setting up of a Statistical Cell for Planning in the Department of Statistics. This Cell is intended for collection, compilation and maintenance of complete and up-to-date data relating to individual schemes of the various departments under the Second Five Year Plan and for the conduct of Socio-agro-economic surveys to assess the overall progress in the economy of the State With a view to calculate the income of the State originating from different sectors of production a National Income Unit consisting of a team of research workers supported by a strong field organisation is proposed to be set up in the Planning Cell during the Second Plan period This Unit will also pave the way to determine, changes in the economic welfare of the people from time to time as a result of the implementation of various developmental schemes.

Other Schemes.

2 The construction of Indices of Parity between prices received and paid by farmers is being attended to as a regular activity of the Department It is now proposed to convert this work as a scheme in the Second Five Year Plan. For this work, a provision of Rs 1.08 lakhs is included in the Plan.

3. A sum of Rs. 1 23 lakhs has been included in the Second Plan for the purchase of a Tabulator for the Mechanical Tabulator Unit in the Statistics Department.

4. It is proposed to establish a separate Administrative Intelligence Unit in the Statistics Department to assess quantitatively the developmental activities in the Community Project areas through a study of the physical targets and benefits to the community The Plan provision is Rs. 0.50 lakh.

PUBLICITY.

5 A sum of Rs. 9 84 lakhs has been provided in the Second Five Year Plan for the implementation of schemes coming under publicity It is proposed during the Plan period to purchase and distribute 1000 Community Receiving Sets in the rural areas. Provision is made in the Second Five Year Plan for the production of three documentaries and this work is expected to be got done by competent private concerns or through the Films Division, Government of India on cost sharing basis. To make full use of the films supplied by the Government of India it is proposed that one mobile van with equipment should be made

available for each District and one motor boat with Cinema equipment for use in the water-logged areas of the State. In order to give effective publicity in respect of the progress of the Five Year Plan Schemes and in respect of other important State events and functions, it is proposed to open District Publicity Offices throughout the State except at Trivandrum where the Office of the Director of Public Relations will serve the purpose. These offices will function as Information Centres as well It is also proposed to organise exhibitions which will serve as an effective media for publicising the Plan and eliciting public co-operation Provision is made in the Second Plan for the publication of advertisements on the progress and achievements of the Plan Schemes. The idea of field publicity activities is proposed to be implemented during the Plan period, while publicity throughout the State on the activities of the Plan schemes is contemplated through the media of Song and Drama. For this purpose a Cultural Development Officer will be appointed in the Department of Public Relations

MUSEUMS AND ZOOS

6 A provision of Rs 3 00 lakhs excluding the Central share of Rs. 1 75 lakhs is made in the Second Five Year Plan for the development of Museums and Zoos in the State. It is proposed to construct a building for the Natural History Museum at Trivandrum. It is also proposed to construct an Auditorium attached to the Museum at Trivandrum As the present museum building at Trichur is very old and requires renovations it is proposed to make it a better and more extensive structure to house exhibits on modern lines.

ANTI SEA EROSION

Progress of the First Five Year Plan

7. In the First Five Year Plan an experimental work for prevention of sea-erosion along one mile of the worst affected area of the sea coast was taken up at a cost of Rs 12 56 lakhs and the work has been completed

Programme of the Second Five Year Plan.

8. The proposal in the Second Five Year Plan is to take up protective measures at some of the most important points along the coast in the State which are subjected to Sea-erosion The work will be mostly in the form of construction of long sea walls parallel to the coast with groynes 200 ft long and at 660 ft. intervals. The estimated cost of the programme is Rs 185 lakhs.

PLANNING ADMINISTRATION.

9. A sum of Rs 2 39 lakhs is provided in the Second Five Year Plan for Planning Administration It is proposed to establish a "Forward Planning Wing" during the Third Year of the Second Five Year Plan for the purpose of conducting studies intended for the scientific evaluation of the progress of the Second Five Year Plan and for providing the basis for the formulation of the Third Five Year Plan. The nucleus for a small Planning Library in the Secretariat has been established during the first year of the Second Plan.

CHAPTER VII.

CENTRAL SECTOR SCHEMES

LOCAL DEVELOPMENT WORKS

Local Development works are intended for the permanent improvement of the country side which include works like Water Supply Schemes, construction of godowns for storage of foods, village roads, bridges, culverts and improvement of rural sanitation, Agriculture including grow more food works etc These works will not ordinarily be undertaken in areas covered by intensive development schemes operated under the Five Year Plan For works taken up under the schemes, Government of India will give a grant of 50% of the expenditure limited to Rs 10,000 for each work. The State Government will give a grant of 1/6 of the balance amount subject to a maximum of Rs 3,333 and the rest vill be contributed by the local bodies and beneficiaries. No work costing above Rs. 40,000 will be undertaken under the scheme.

2 The powers of selection and execution of the works under the Scheme are vested with the District Collectors. The Collectors are competent to sanction estimates costing up to Rs 20,000 and those above Rs 20,000 are sanctioned by Government It is estimated that Rs 30 lakhs will be spent annually on these Schemes.

MINOR PORTS.

3 During the First Five Year Plan period the Port Development works were the reconstruction of Valiathura Pier, Trivandrum and the improvements to the Alleppey Port in the former Travancore-Cochin area The work of the Valiathura Pier was almost completed by the close of the First Five Year Plan Period and the work of Alleppey Port has been carried over to the Second Plan as there was only very little Progress in the improvement to the same during the First Five Year Plan Period

4 The Second Plan allocations for the development of Minor Ports in the Travancore-Cochin and in Malabar areas are of the order of Rs 30 50 lakhs and Rs. 17 66 lakhs The development works are financed partly by the State Minor Ports Funds and Partly by the Central Government in the shape of loans.

INLAND WATER TRANSPORT.

5. The improvement of inland water ways is of great importance from the point of view of communications in the State of Kerala. The Canals along the West Coast form one of the important water-ways for navigation which consists of artificial canals connecting together river-mouths, creaks and natural backwaters. The water-ways stretch from Hosdurg in the north to Trivandrum in the South except for a break between Valapattanam and Vadagara a distance of 30 miles. A scheme for opening a new canal for this distance of 30 miles has been prepared at a total estimated cost of Rs 115 lakhs Of this one section of about 7 miles from Malampuzha to Muratpuzha costing Rs 36·80 lakhs is proposed to be taken up during the Current Plan Period.

6. An amount of Rs 43.00 lakhs is also allotted under Inland Water Transport Schemes under the Second Five Year Plan for the construction of 3 new Canals, viz Alleppey—Shertallai Canal, Trivandrum—Shornur Canal and Badagara—Azhikal Canal, investigation and for the improvements to the existing 4 Canals.

7. The whole scheme is to be financed out of Government of India loan assistance

FLOOD CONTROL.

8. Flood control works include the construction of flood banks along both sides of rivers to confine flood flow within the river margin and the construction of groynes at points where damaging erosion takes place. Pumping stations will also become necessary at selected points for discharging the land drainage An amount of Rs. 100 lakhs has been allocated by Government of India for Flood Control works in the State during the Second Five Year Plan Period

9. A Flood Control Board with a technical advisory Committee has been formed to deal with the problems more effectively and to implement the Schemes more promptly. The damage that is being caused by river floods will be considerably reduced by the end of the *Second Five Year Plan Period.*

URBAN WATER SUPPLY & DRAINAGE SCHEMES.

(including Corporation Schemes)

10. The following are the schemes included under the above sector for implementation during the Second Five Year Plan Period: —

1. Trichur Water Supply Scheme,
2. Ernakulam—Mattancherry Water Supply Scheme,
3. Quilon Water Supply Scheme,
4. Kottayam Water Supply Scheme,
5. Ernakulam—Mattancherry Drainage Scheme, and
6. Trivandrum Drainage Scheme.

11. The total estimated cost for the above schemes is Rs. 570 13 lakhs.

12. The Trichur and Quilon Water Supply Schemes will provide Water Supply for the Trichur and Quilon Municipalities It has been proposed to have a detailed scheme for the Ernakulam—Mattancherry Water Supply Schemes costing nearly Rs 100 lakhs besides the work costing Rs 152 10 lakhs already started The present water supply of 28 lakhs of gallons per day will be augmented to 150 lakhs of gallons per day by Provision of big sized pumping mains, new treatment Plan and other Head Works located at Alwaye The Kottayam Water Supply Scheme provides for water supply from an infiltration gallery from the bed of a river from Peroor, 5 miles from Kottayam Under Ernakulam—Mattancherry Drainage Scheme The construction of a

sewage Treatment Plant which can also be used for treatment of night soil was sanctioned towards the end of the First Five Year Plan. It is proposed to take up the under ground Drainage Scheme for Ernakulam town zone by zone according to the availability of fund so that each zone when completed may be brought into service and connected on to the sewage treatment works which are already completed.

13. The Trivandrum Drainage Scheme Block 'B' is a Corporation Scheme for which a loan of Rs 25 00 lakhs has been sanctioned by Government of India *The estimated cost of the work is Rs 36·9 lakhs*

KHADI AND VILLAGE INDUSTRIES.

14 The Kerala Khadi and Village Industries Board has been constituted on 1st August 1957 to implement the schemes relating to Khadi and village industries The Schemes for each year are being implemented in accordance with the approval of the Khadi and Village Industries Board

15 Prior to the constitution of the Board, the schemes under Khadi and Village Industries were being implemented by the Industries Department

16 The allotment made by the State Government during 1956-1957 was Rs 3 65 lakhs for starting dye-houses, purchase of Ambar Charka Khadi Weaving, Village Oil Industry, Hand pounding of rice, Hand made paper, Bee-keeping etc. The provision made for 1957-58 was Rs. 4 71 lakhs. Over and above this an amount of Rs 3 59 lakhs (Rs 1 86 lakhs as grant and Rs 1·73 lakhs as loan) was sanctioned to the Board by the Khadi and Village Industries Commission for the same year

17 *For the Year 1958-59* the Khadi and Village Industries Commission has allotted Rs 25 83 lakhs (Rs 17 42 lakhs as grant and Rs 8·41 lakhs as loan) to the State Khadi Board

18 Fifty per cent of this fund will be spent in Block areas and 15% in Gramdan areas.

Khadi.

19. The Khadi Scheme covers the following 3 categories —

1. Individual self-sufficiency in Khadi by subsidising weaving charges.
2. Regional self-sufficiency in selected areas, and
3. Production of Khadi for sale.

20. The other schemes included in the Plan, under this head consist of Spinning competitions on local, Regional and State basis conducted to promote proficiency in spinning, training in Ambar-charka and salesmanship and Khadi and Village Industries exhibitions organised in different parts of the State.

Village Industries

21. The schemes included under Village Industries consist of Bee-keeping, Cottage match, Village Pottery, Non-edible oil, Soap making, Village tanning, Village Oil, Palmgur—Development Hand made paper, hand-pounding of rice and Gur Khandsari. In 1958-1959, 3 units will be established to manufacture Gur and Khan-dasari on Scientific and Cottage Industry basis.

PART III

DESCRIPTION OF SCHEMES—SCHEME-WISE

CHAPTER VIII.

AGRICULTURE AND COMMUNITY DEVELOPMENT.

A. AGRICULTURAL PROGRAMME

1. AGRICULTURAL PRODUCTION

1 Reorganisation of the Department of Agriculture.

The administrative set up of the Agricultural department should be so constituted that it must have under it all branches which are complementary to 'Extension', that is, education of the rural agricultural population of the State in the application of scientific knowledge to their occupation of agriculture It must possess a well-staffed and well-equipped research section for the investigation of the various problems that are already numerous, and which continue to increase. The department must possess suitable teaching institutions for imparting education and practical training in Agriculture. The department must consist of a well trained general extension staff, besides special staff for specialised duties like compost development, seed distribution, plant protection, etc There should be a separate branch to deal with all matters concerning agricultural marketing In view of the increased developmental activities it is proposed to reorganise the department The financial target of the scheme is Rs 18 01 lakhs.

2. Scheme for the establishment of seed farms.

2. Rice is the staple food of the people of Kerala and it is the most important food crop grown in the State The State presents a very large variety of agricultural conditions from the point of view of soil, level of fertility and irrigation facilities. The research work so far done to evolve improved strains of rice suitable for the various types of soils and seasons has been very negligible Some of the strains evolved namely, Cochin 1, M. O 1, and M. O 2, were given out for cultivation But due to lack of attention for the maintenance of purity, they become badly mixed up and are not fit for multiplication and distribution.

3 The main handicap has been the absence of suitable facilities for growing and multiplying the varieties under Departmental control. Under the Second Five Year Plan, it is proposed to establish one seed multiplication farm in each district, of about 15 to 20 acres in area for the production and multiplication of nucleus seed.

4. Sites have been selected in all the Districts except Alleppey. About 8 acres each have already been acquired in three districts and in one district a farm of about 23 acres has been acquired and work started. In other districts acquisition proceedings are in progress.

5. The total provision in the Plan is Rs. 14·00 lakhs.

3. Arecanut Research and Development.

6. Kerala is the most important arecanut producing State in India In view of the overall shortage of arecanuts in India, it is proposed to increase the production of arecanut in Kerala by adoption of intensive methods of cultivation, by evolving improved cultural practices and manuring and also by the control of diseases and pests now affecting the arecanut tree.

7. The Indian Central Arecanut Committee has sanctioned the establishment of two arecanut research stations in Kerala State fully financed and administered by them It is proposed to start one research station in the Malabar area and another in Central Travancore. Sites are being selected for the stations.

8. These research stations will study all problems connected with the agronomy, diseases and pests of the arecanut crop For the immediate increase in the production of arecanuts the following measures will be taken —

(a) Providing irrigation facilities for arecanut growers by encouraging the sinking of wells and setting up pumping plants

(b) Providing fertilisers on easy terms for arecanut growers

(c) The establishment of nurseries for providing quality seedlings both for planting new areas and for under planting in existing gardens.

9. Five nurseries have already been established An Arecanut Development Officer and necessary subordinate staff have been appointed The financial provision for the scheme is Rs 10 80 lakhs

4. Development of horticulture, Expansion of Nursery Section.

10 Horticultural activities on a very restricted scale are now carried on in some of the farms of the Agricultural Department In the Government farms at Taliparamba, Pattambi, Nileswhwar, Ambalavayil and Ollukkara, there are small orchards of fruit trees and seedlings and grafts are raised and distributed from these farms. Pineapple plant suckers and seeds of common vegetables are also raised and distributed from these farms The scale of these activities is however far too limited, compared to the requirements of the State There was a fruit farm near Cape, which is now with Madras State. This farm was an important source of supply of fruit seedlings to the Travancore area which has now no source of supply in regard to fruit seedlings.

11 The scheme for the development of horticulture envisages the establishment of model orchards and nurseries in each district for the supply of reliable grafts and seedlings from standard fruit plants. A model orchard of 25 to 30 acres will be established in each district where standard fruit plants of all suitable and important varieties would be planted. · From these

standard trees, grafts and layers will be prepared and supplied to the public on a no-profit no-loss basis. These model orchards will also be developed as centres for the training of gardeners in subsequent years.

12 The financial target of the scheme is Rs. 19 09 lakhs.

5 Scheme for the Distribution of Agricultural Machinery— pump sets and tractors.

13. It is proposed to distribute on hire purchase system pump sets suitable for lift irrigation and also tractors for reclaiming lands. Special rules have been prepared for the hire-purchase system.

14 There is very large scope all over Kerala for small lift irrigation projects, both privately owned and co-operatively owned This will not only protect the crop from drought, but it will also stabilise and increase the yield of paddy The tractors will be used in the reclamation of virgin lands and will also help in the more efficient cultivation of areas which could not otherwise be put to efficient use, and will therefore increase the production of food

15 As this is a Grow More Food Scheme financial assistance is expected from the Government of India The Plan provision for the scheme is Rs 2 10 lakhs

6 Plant protection, Control of pests and diseases.

16 It is now well established that insects on an average cause 10 to 20 per cent loss every year. This loss could now be minimised or fully eliminated by the adoption of timely plant protection methods. Elimination of loss really amounts to additional production

17. In Kerala State on account of the high rainfall, humidity and continuous cropping of the lands, the incidence of insect pests is very much more than in many other States, and an efficient plant protection organisation is therefore very essential to save loss of crops The plant protection scheme, therefore, aims at stocking a sufficient number of dusters and sprayers to be given to cultivators to combat pest attacks as also stocking and distributing adequate quantities of pesticides and fungicides from suitable centres to cultivators.

18. In some areas the arecanut palms are affected by the yellow leaf disease. It has been found that spraying with one per cent bordeaux mixture three times a year, and proper manure ing are capable of controlling the disease Considerable propaganda work has been undertaken for the purpose of popularising spraying and manuring arecanut trees The spraying will be done free of cost by Government but the cultivators will do the manuring at their own cost It is proposed to spray about 2·5 lakhs of palms The total provision for the scheme is Rs 17 00 lakhs.

7. Distribution of fertilisers.

19. Distribution of fertilisers and manures is one of the important items of work connected with the drive for increasing the production of food Till very recently all fertilisers were distributed from Government depots through the officers of the Agricultural Department For the past four years, however, the distribution of ammonium sulphate has been entrusted to the F. A. C T. who have also undertaken to distribute adequate quantities of superphosphate. Towards the end of the first plan, the consumption of ammonium sulphate was about 6,000 tons per annum and of superphosphate about 1,500 tons. The objective is to raise the consumption of these fertilisers to 35,000 tons and 6,000 tons respectively by 1960-61.

20 The Department of Agriculture distributes through Government Depots every year 6,000 to 7,000 tons of bonemeal which is procured by inviting tenders. It is also proposed to distribute through depots large quantities of hyperphosphate.

21. Among the phosphatic fertilizers, bonemeal also is given 25% subsidy.

22 The provision for this scheme is Rs 24 lakhs largely for meeting the subsidy on bonemeal and other phosphatic fertilisers.

8. Miscellaneous Research Schemes.

23. Towards the close of the first plan period, research schemes on bunchy top disease of plantains, Katte disease on cardamom and a scheme for the research on tapioca and sweet potato were sanctioned by the I C. A R Recently I C A R has also sanctioned a number of research schemes for evolving improved varieties of rice, the expenditure of which is to be shared on the usual pattern, between the I. C. A R and the State Government. Research Schemes have also been sanctioned on pineapple, bananas and orange It is expected that a number of additional schemes will also be sanctioned by the I C. A. R in the near future To meet the share of the State Government on these schemes already sanctioned and likely to be sanctioned, a sum of Rs 2 25 lakhs is provided.

9. Distribution of improved paddy seeds

24. The objective of this scheme is to popularise the growing of improved varieties of paddy and to saturate the entire rice area of the State with superior improved varieties in course of time. Special schemes will be prepared for special varieties for specified areas from time to time as suitable varieties become available.

25 U R. 19 is a high yielding strain of paddy evolved at the paddy Breeding Station at Kayamkulam and is found to be suitable for the second crop in the Onattukara region of Quilon District The Scheme provides for the multiplication through approved growers, and also for procurement and distribution of specified quantities of seed every year for 3 years till the entire

Onattukara region will be saturated with these varieties. There is a similar scheme for the multiplication and distribution of improved Pattambi strains in Malabar area also. The scheme envisages payment of subsidy eligible under the Grow More Food Plan for procurement and distribution of seed.

26. The total provision in the Plan is Rs. 8·25 lakhs.

10. **Distribution of green manure seeds.**

27 The use of green manure is one of the surest ways of improving the fertility of the soil and of raising the standard of production from lands in Kerala. The scheme envisages the distribution of green manure seeds, both of the perennial and seasonal varieties Amongst the perennial varieties, seeds of Glyricidia Maculata and Indigofera Tyesmanii will be procured and distributed in small 1 oz and 2 oz packets. The objective is to plant a 100 Glyricidia plants for every acre of paddy and one Glyricidia plant for every coconut tree. These will be planted on the borders of fields, house compounds, along the fencing of the road side, etc Besides large quantities of seasonal green manure seeds will also be distributed This will be distributed by the staff of the Agricultural Department on a no-profit no-loss basis

28 The total amount provided for this scheme is Rs. 1·00 lakh.

11 **Scheme for the Development of local manurial resources.**

29 In view of the short supply of nitrogenous fertilisers in India in general, and difficulties of importing them from foreign countries, it is necessary to fully exploit all local available manurial resources for the purpose of stepping up food production in the country Cattle dung and organic wastes of all kinds which are now burnt will be converted into compost manure by the improved scientific process.

30. Night soil and town sweepings collected in Municipalities and Panchayats will also be converted into compost manure by the adoption of scientific method of composting The local bodies will be given financial assistance for providing transport and other facilities required for the conversion of night soil and town sweepings into compost.

31. The work will be started in 54 N. E S Blocks in the first instance. One Compost Inspector will be posted in each Block. Besides there will be 3 Manure Development Assistants to supervise the work of these Compost Inspectors. The whole work will be directed and supervised by a Manure Development Officer. All the staff will be given training. Training will also be given to 50 selected farmers in each Block The distribution of green manure seeds will also be undertaken by this staff wherever they are present.

32. The financial provision of this scheme is Rs. 5·03 lakhs.

12. Development of Cashewnut

33. Cashewnut industry is a very important one in southern Kerala and employs several thousands of labourers. The production of nuts in the country meets only a part of the requirements of this industry and the rest is imported from Africa. It is therefore proposed to step up the production of cashewnut in the country so as to meet the full requirements of this industry.

34. At the present time cashewnut is grown in the poorest soils and no attention is devoted to this crop. The scheme envisages the improvement of the cultivation of cashewnuts by propaganda, by the distribution of quality seeds and clonal material and also by taking the necessary steps for controlling the diseases and pests of cashewnuts. The increase in the area under cashewnut envisaged under the scheme during the plan period is 5000 acres.

35 A provision of Rs. 2·87 lakhs has been included in the plan for this work.

13. Development of Sugarcane.

36. Kerala has about 18,000 acres under sugarcane at the present time The cultivation of this crop is carried on in the traditional way and little attention is paid to scientific manurial and cultural practices There is therefore great scope for improving cultural practices and for raising the present level of production. The scheme envisages the introduction of improved Coimbatore canes suitable for the locality, popularisation of scientific cultural practices, such as trench system of planting, earthing up and tying, balanced manuring, irrigation and other cultural practices, evolved in other cane growing countries It is also proposed to increase the area under cane wherever facilities exist for the same.

37. For improving the cane in the Pumba factory zone a development scheme was started from 10-11-1954 financed jointly by the Sugarcane Committee, State Government and the Pumba Sugar Factory on a 50 25. 25 basis This scheme contemplates distribution of Sugarcane setts at subsidised rates, demonstration of improved cultural methods and use of fertilisers and also use of plant protection methods This scheme which worked for two years popularised the improved methods in the immediate neighbourhood of the factory over an area of about 2000 to 3000 acres It is necessary to continue the work during the second plan period to consolidate the work done in the previous years and also to develop new areas There is great scope for improving and developing cane cultivation in Chittur Taluk and in the valley of Periyar, Muvattupuzha and other rivers.

38 The main objectives of these schemes are (a) provision of facilities for irrigation by encouraging minor irrigation works by the grant of subsidy up to 33 1/3%.

(b) The multiplication and distribution of good quality seed materials

(c) A small subsidy on seed material sold to growers, to reduce the cost of seed and to make them popular.

(d) Laying out of Demonstration plots for popularising the use of fertilisers and improved cultural practices and plant protection measures

39 The financial target of this scheme is Rs. 8 36 lakhs and the physical target 18,000 acres

14. Development of Coconut

40 Kerala is the foremost producer of coconuts in India with an area of 10 7 lakhs acres under coconut In recent years however, the production has fallen very low in spite of extension in the area under coconuts The main reasons for this fall are declining soil fertility, neglect of cultivation and incidence of certain diseases The average annual loss from disease is estimated at 13 crores of nuts valued at Rs. 2 00 crores The diseases are spreading; a comprehensive spraying scheme has been started to combat these diseases

41 The schemes proposed for the Second Five Year Plan are,—

(a) *Demonstration plots.*—During the second Plan period, it is proposed to open 224 demonstration plots Manurial and cultural methods and the control of pests and diseases will be demonstrated at these centres

(b) *Supply of seedlings* —The number of nurseries to be maintained during the plan period is the same as at present—*viz.* 12, though there may be changes in the location of a few nurseries For the effective distribution of quality coconut seedlings among the cultivators arrangements for transport will also be made. Seven lakhs of quality seedlings are thus expected to be distributed during the Plan period.

(c) For the proper co-ordination of the Departmental activities relating to coconuts a separate coconut section of the Department has been formed with a Deputy Director in charge of Coconut Development

42. The total provision for the coconut schemes is Rs. 9 43 lakhs.

15 Puncha Dewatering Scheme

43. The Kuttanad area in Travancore has a large shallow lake area. After the floods of the North West Monsoon subside, bunding operations are started and water is pumped out of the bunded fields and a crop of paddy is taken. In previous years these lands were subjected only to cultivation once in two years on account of the difficulties and cost involved in bunding and

dewatering. To induce the cultivators to take up annual cultivation, it was decided to give a subsidy of 25% of the pumping charges. This encouragement given to the puncha cultivators has resulted in an area of over one lakh of acres being brought under annual cultivation thereby increasing the production of food in the State, besides providing fuller employment to a very large number of people. The expenditure is shared by the Government of India and the State Government

44 The financial provision for this scheme is Rs 10 lakhs

16 Comprehensive spraying scheme for the control of Coconut diseases.

45 The diseases of the coconut trees, which first appeared somewhere near Alleppey about fifty years ago have been slowly but steadily spreading all round, until at last these diseases have now spread over 27 taluks and about 80 lakhs of coconut trees are affected The production of nuts in the affected trees has gone down by nearly one half The total loss caused to the cultivators on account of these diseases is estimated at Rs 2·00 crores.

46 It has been found that spraying twice a year one before and another after the monsoon with a copper fungicide mixed with D D T helps to control the diseases and to increase the production of nuts The comprehensive spraying scheme envisages giving two sprayings to the 80 lakhs of trees in the affected areas or 160 lakhs of spraying a year A fee of one anna per tree per spraying will be collected from the cultivators 1350 sprayers of the rocker type are now being employed for conducting these sprayings as against 2500 originally contemplated The Pest Act will be enforced throughout the affected area for the efficient working of the scheme. The financial provision for this scheme is Rs 12 87 lakhs.

17. Increasing the production of Oilseeds—Groundnut & Sesamum.

47 Kerala has only a very small area under oilseeds, and mostly sesamum There is however scope for increasing the area under sesamum and also for introducing the cultivation of groundnut on a large scale It is proposed to substitute low-yielding inferior local varieties with improved high-yielding strains obtained from Madras and other neigbouring States. This alone will lead to an increase in the yield by 20 to 25%. Before undertaking such large scale distribution of seeds from the neighbouring States it is proposed to conduct systematic field trials of these improved seeds and the successful strains will be propagated for further distribution.

48. A Research scheme for evolving improved strains of sesamum suitable to the State was sanctioned by the Indian Central Oil-seeds Committee and has started functioning. The financial target is Rs. 0·60 lakh.

18 Improvement of Lemongrass Research Station.

49 The lemongrass oil produced in the State enjoys a very high reputation because of its high content of essential oils. Very little research has so far been done for improving the lemongrass or for improving the technique of distillation The lemongrass research scheme therefore contemplates research on both these aspects of the lemongrass industry.

50. A small unit consisting of a farm of 25 acres and a small distillation shed and laboratory has been established at Odakkali in Trichur District. It is proposed to further develop this station and undertake work on a more extensive scale. Breeding work will be undertaken to evolve more suitable varieties and pure strains. Fertiliser experiments will be conducted for the purpose of increasing the production of lemongrass per acre. The technique of distillation will be developed by using different types of stills and different types of fuel for distillation will also be studied. It is also proposed to organise a producers co-operative society. The scheme will be financed jointly by the I C. A R. and the State Government. The scheme is expected to cost Rs 1 6 lakhs of which the share of the State Government is 0 72 lakh and that of the I. C A. R Rs 0·44 lakh

19. Cultivation & Research on the cultivation of Ginger.

51. Kerala is an important ginger producing area, particularly in the districts of Kottayam and Quilon The total area of the crop in the State is 26000 acres. Ginger is an important export crop There are a few good varieties in the State, but there is great scope for improvement as regards the quality and contents of rhyzomes.

52. The research scheme is intended to improve the ginger crop in general, particularly for investigating the varietal, manurial and cultural aspects of this crop. A ginger research station has been started at Thodupuzha. The scheme will be worked for a period of five years in the first instance.

53. The total cost of the scheme is Rs. 0 54 lakh shared between the State Government and the I C. A. R. The share of the State Government is Rs. 0·30 lakh and that of the I. C. A. R is Rs. 0·24 lakh.

20. Cardamom Research Station.

54. Kerala is the most important producer of cardamom in India. Most of the crop produced in the State is exported to foreign countries and it is a good dollar earner Although cardamom is such an important and valuable crop no serious effort has so far been made either to improve the crop or to study any of the problems connected with the cultivation of cardamom. A plantation of about 100 acres will be established. All aspects of cardamom cultivation such as methods of cultivation, selection of suitable varieties, use of fertilizers, investigation on pests and diseases will be undertaken at this station.

55. The scheme will be financed jointly by the State Government and the Indian Council of Agricultural Research. The total cost is Rs 1·73 lakhs of which the I. C. A. R. will contribute Rs. 0·64 lakh.

21. Development of Pepper

56. Pepper is an important spice crop of the State. It is largely exported and is a good dollar earner. Indian pepper is now subjected to severe competition from some of the South East Asian countries. It is therefore necessary to put the production of pepper in India on solid foundations so as to enable it to withstand the growing competition in world markets The Pepper Development Scheme is intended to improve the present level of production and also to improve the quality of the produce The main objects of the scheme are -

i. Intensive cultivation of existing gardens.

ii Gradual replacement of old and unthrifty vines in existing gardens with superior vines, and

iii. Extension of the cultivation to suitable areas

The financial target of the scheme is Rs. 5 46 lakhs

22 Pepper Research Station

57 The main object of the scheme is to carry out scientific research for the improvement of the Pepper crop Its yield and quality by evolving improved strains and also to study the agronomy of the Pepper crop in regard to manurial and cultural requirements. A research station has been established in the Anjerickal reserve in Thodupuzha. A complete collection of all varieties available in Kerala and outside Kerala will be made. Varieties will also be collected from South East Asian countries.

58 During the First Plan period a Pepper Research station was started at Panniyur near Taliparamba where research on the evolution of disease-resistant and high-yielding strains are being carried out.

59 The pepper research scheme will be worked for a period of five years in the first instance The Plan provision for the scheme is Rs 1 53 lakhs

23. Soil-Testing Laboratory

60. The main objective of the soil-testing laboratory is to test soil samples collected from the fields of agriculturists for the important plant nutrients so that agriculturists may be advised with regard to the kind of manure required for the soil. The soil-testing laboratory will be established in the Agricultural College. This scheme will be fully financed by the Government of India during the first three years of the Plan

61. The cost of the scheme for the Second Five Year Plan period is Rs 0 39 lakh

24. Agricultural College and Research Institute.

62 The re-organisation of the Department of Agriculture and the expansion of activities in the direction of research and extension necessarily involve the employment of an increasing number of agricultural graduates Kerala had no Agricultural

College and therefore great difficulty was experienced in securing the services of an adequate number of Agricultural Graduates to fill the new posts sanctioned every year. An Agricultural College for Kerala therefore became an essential necessity and was started in 1955 During 1955-56, fifty students were admitted to the College From 1956 onwards admissions have been raised to 80 students, a year.

63 With the college is associated an Agricultural Research Institute for undertaking research on the various agricultural problems of the State. The Professor in charge of each important subject will also be the chief expert authority on the subject in the State and he will be in charge of all research on the subject in the College.

64 The total cost of the scheme for the Second Five Year Plan period is Rs 31 75 lakhs.

25 Strengthening of Agricultural Marketing Staff.

65. The marketing section is now an important adjunct of the Agricultural Department in all States The marketing section deals with all matters connected with the marketing of agricultural crops The marketing section in all States works largely according to an All-India Plan. The marketing section of the old Travancore-Cochin State was an extremely small unit. It is therefore proposed to strengthen the marketing section by the appointment of a qualified person as Chief Marketing Officer and also by recruiting additional staff for market investigations. The Marketing Officer who was recently appointed has been deputed for training in Delhi for a period of one year The provision included in the Plan for the scheme is Rs 3 23 lakhs

26. All India Market News Service.

66. A Market Intelligence Service for the purpose of collecting and disseminating information in regard to market arrivals, prices etc is now considered an important activity of the marketing section This service helps the producers to get the best price possible for their produce. This service in Kerala State is at present done in a very imperfect manner The Statistics Department collected some market information in the old Travancore-Cochin area while in Malabar the Marketing section of the Madras Agricultural Department collected some information It is therefore proposed to establish an efficient Market News service in Kerala State It is proposed to start this activity during 1958-59.

67 The Plan provision for the scheme is Rs 0 72 lakh

27. Agricultural Information Service.

68. Adequate publicity in regard to all items of agricultural improvement is an essential necessity for popularising agricultural improvements. It is proposed to constitute an information section in the Department of Agriculture, to attend to all forms of publicity, such as the preparation and distribution of popular

literature, for the use of all officers of the Agricultural Department and also for the use of the general public This section will also conduct a monthly magazine for the use of the farmers of the State and will also attend to all enquiries from farmers on Agricultural matters This section will also be responsible for all forms of publicity such as participation in exhibitions organising special campaigns, etc.

69. The plan provision for the scheme is Rs. 4'43 lakhs

28. Extension Training.

70. At the commencement of the Second Five Year Plan, the following Training Centres were in existence in Kerala.—

Basic Agricultural School,	Ollukara.
Do do	Taliparamba.
Extension Training Centre,	Kottarakara
Home Economic Wing (for Gram Sevikas)	Kottarakara
Workshop for Village Artisans,	Kottarakara

The following are proposed to be added in the Second Five Year Plan.—

		(Rs. in lakhs)
1.	Extension Training Centre—1 single shift	4'70
2.	Basic Agricultural School—One	3 81
3.	Group Level Worker's Wing—One B type	0 74
4	Village Youth Centre—One	0 76
5	Refresher Course for Village Level Workers—One Centre	0 48
		10'49

71. Of the schemes, the Extension Training Centre at Pattambi in Palghat District has already been started A Basic Agricultural School was started at Peroorkada in Trivandrum The Government of India have also sanctioned the conversion of the existing B type Group Level Workers' Wing at the Extension Training Centre, Kottarakara in the Quilon District into an A Type with the provision made in the Second Five Year Plan for the purpose The remaining two schemes, *viz*, Village Youth Centre and Refresher Course will be started soon

29. Supply of lime to neutralise acidity in the Kari lands of Kuttanad.

72 Most cultivated lands in Kerala are largely acidic This is particularly the case with what is popularly known as the 'Kari' lands of Kuttanad which cover an area of nearly 50000 acres. This land is so acidic in reaction that its productivity is very low. Application of lime at the rate of one ton per acre every year has been found to increase crop production by 100 to 200 per cent. It is therefore proposed to distribute 5000 tons of half-burnt lime every year to improve 5000 acres of kari land,

73. It is proposed to give a subsidy of Rs. 5 per ton Half the amount paid as subsidy will be met by the Government of India The provision for the scheme is Rs. 0 75 lakh for the Plan period.

30. Construction of permanent bunds in the Kayal areas of Kuttanad.

74. In the Kayal (lake) lands of Kuttanad, the construction and repair of bunds is a heavy item of recurring annual expenditure to the agriculturists. There is therefore urgent need for constructing permanent stone bunds along the main communication channels and also along the outer walls facing tidal waves. It is therefore proposed to give loan for the construction of permanent stone bunds under Land Improvement Loans Act The loans will be given by the Revenue Department on the recommendation of the Agricultural Department who will certify the need for constructing stone bunds The loan will also be recovered by the Revenue Department in specified instalments It is estimated that as a result of constructing permanent stone bunds the productivity of the hinterland will be increased by at least ten per cent

75 Loans will be given in three instalments. 30% will be given when the loan is sanctioned 35% will be given when the work to the full value of the loan already given is completed The remaining 35% will be given when the entire work is completed.

76 A sum of Rs. 5 lakhs is provided in the Plan.

31. Development of Clove, Nutmegs, Cinamon and Camphor.

77 The object of the scheme is to increase the production of cloves, nutmegs, cinamon, camphor, cocoa, and other valuable spices and essential oil plants in the State Nurseries will be set up in suitable places and planting material will be raised and distributed to cultivators on a subsidised basis The total cost of the scheme is Rs 1·5 lakhs. This scheme will be fully financed by the Government of India.

32. Establishment of 100 acres farm for intensifying research on crops other than paddy.

78. The object of this scheme is to conduct research on crops other than paddy. It has been proposed to establish two farms of hundred acres each at a total cost of Rs. 7·00 lakhs for a period of four years with effect from 1957-58. This is a Centrally assisted scheme.

33. Lump sum provision for Research

79. A lump sum provision of Rs. 8 00 lakhs has been made in the Second Five Year Plan or the implementation of new Research Schemes. The following Research Schemes have been drawn up.

(1) Scheme for evolving improved varieties of rice for Kerala State.

80. Geographically the State has different regions and with reference to the factors affecting rice cultivation these regions are very different from one another. A variety grown in one region is rarely grown in other regions. It is therefore essential that all work connected with the improvement of rice and evolving of new varieties should be done separately for each one of these regions It is proposed to have separate Research Stations for the following regions

(i) Kaipad on Pokkali areas

(ii) Kuttanad area-separate research stations for Punja, Kayal and Kari lands.

(iii) Onattukara region

(iv) The Middle laterite belt

Comprehensive research for evolving higher-yielding and better quality rice suitable for each region will be undertaken.

(2) Scheme for Research on Banana

81 Kerala is the biggest Banana growing State in India and in recent years, the bunchy top disease is threatening to ruin banana cultivation in the State The Indian Council of Agricultural Research has agreed to set up a Regional Research Station for Banana in Kerala

(3) Scheme for Research on Pineapple

82. Pineapple is also a very important fruit crop in many parts of the State and there is much scope for expanding the cultivation of this crop. Kerala is the biggest producer of canned Pineapple The Indian Council of Agricultural Research has agreed to start a Regional Pineapple Research Station in the State

(4) Scheme for Research on Orange.

83 There is considerable scope for the expansion of Orange cultivation in Nelliampathy Hills and Wynaad There are already about 400 acres of plantation under Government management. The scheme proposes to start Research on the 'Quick Decline' disease which is noticed in some of the plantations and also to work out scientific methods of cultivation of Orange on hill slopes

(5) Scheme for Research and Development of Vanilla cultivation in Kerala State.

84. The object of the scheme is to foster production of Vanilla in this State by undertaking Research and Development work on this crop as it has been found that the crop thrives very well in this State. It is expected that the scheme will be fully financed by the Indian Council of Agricultural Research.

34. Development of Cardamom.

85. A Research Station for the Research on Cardamom has already been started in the State. Cardamom is an important cash crop of the State and there is great scope for the development of Cardamom in the Taluks of Peermade and Devicolam as well as in the Wynaad For the development of the scheme a sum of Rs 0 30 lakh is proposed.

35. Establishment of demonstration plots for the popularisation of Japanese Method of paddy cultivation

86. The popularisation of the Japanese Method of paddy cultivation is the most effective way of increasing the out-turn of paddy in the State The object is to bring about 13 lakhs of acres under the Japanese method of cultivation by the end of the Plan period

87. To popularise the essential features and advantages of the Japanese Method of cultivation, it is proposed to establish 500 demonstration plots every year in the remaining years of the Plan period The plots will be established on privately owned lands The owner of the land will do all preliminary cultivation operations, use improved seed, plant the crop in lines, do inter-cultivation and bear all expenses connected with harvesting and threshing. The Department of Agriculture will provide free of cost all the manure required for the cultivation, the Japanese hoes required for intercultivation and also plant protection materials and equipment. When the crop is at its best condition a 'Farmers Day' will be held near this plot The financial provision for the scheme is Rs 1 27 lakhs

36. Simple fertilizer trials on cultivator's fields.

88. The object of this scheme is to carry out simple fertiliser trials for obtaining information on crop responses to different types and doses of fertilisers This scheme was fully financed by the I C A. R and was worked in 1956-'57 under a special Research Officer. This scheme was originally worked outside the Plan The entire expenditure on account of the scheme *viz*, Rs 1.25 lakhs will be borne by the I C. A R No provision is therefore made in the State Plan.

2. MINOR IRRIGATION PROJECTS

1 Medium Irrigation

89. The Plan provides for the construction of 34 medium irrigation schemes spread throughout the Travancore-Cochin area of the State, 8 Nos. in Trivandrum District, 6 in Quilon, 5 in Alleppey, 4 in Kottayam and 11 in Trichur Irrigation schemes of similar type in Malabar are dealt under Special Minor Irrigation schemes The total cost of the scheme is Rs 86.08 lakhs. This will benefit an area of 74,773 acres. The capital cost per acre works out to Rs. 115

90 The following works are proposed.

TRIVANDRUM DISTRICT :

Spillover · 1 Reconstructing a regulator over Parachira in Killiyar

New Schemes 2. Reconstructing Iranimuttom Dam

3. Improvements to Nedinjalikulam in Nemom Pakuthy and providing irrigation facilities in and around Vellayani.

4. Renovation of dam in Nemom River.

5. Improvements to Machayil thodu in Marukul Pakuthy

6 Formation of flood bank in Thirupuram Pakuthy

7. Rain damages to Thettiyar, Pangappara thodu, Pattom thodu and Ulloor thodu.

8. Improvements to Kottukal channel.

QUILON DISTRICT .

New Schemes 9. Ithikara Yelah scheme.

10 Construction of a dam across Itthikara river in Adichanalloor Pakuthy.

11. Improvement to Chakkuvallichira and other major Kals

12. Improvements to Perumkulam Yelah.

13. Constructing a dam at Mannathi in Suranad Pakuty

14 Constructing a sluice-cum-regulator bridge across Oachira Krishnapuram canal in Puthiyadom Govinda Muttom road.

ALLEPPEY DISTRICT

Spillover . 15 Constructing a flood diversion weir at Puthenar

New Schemes 16 Permanent bund at Anthakarazhi.

17. Canal dividing Thaiparambu Padasekharam.

18. Opening a canal from Muttar to Neelamperur (Part)

19. Improving and widening Wadakkekidayil canal in Nedumpuram Pakuthy in Thiruvalla Taluk.

KOTTAYAM DISTRICT :

Spillover . 20. Opening a thodu from Muvattupuzha to Vadagai Kari lands

New Schemes : 21 Pamba Irrigation scheme to irrigate Chambakkad.

22. Irrigation schemes in Kanthalloor

23. Opening a canal from Muttar to Neelamperur (Part)

TRICHUR DISTRICT :

Spillover : 24 Irrigation facilities in Chittoor Taluk

25. Improvements to Muriyad Moorkanad canal

26 Widening and deepening Airoor thodu

27 Improvements to Chittoor Irrigation system—construction of Venkalayakayam reservoir.

28 Construction of a lock cum regulator Vettuveli

29 Construction of a weir at Manjankuzhi.

30 Konath Bund—permanent sluice-cum bridge

31. Improvements to Thottara Punja fields

32 Improvements to Chakkarachal.

33 Improvements to Kandikulam padom

34 Improvements to Parur Bund

2 Special Minor Irrigation

91 These irrigation schemes in the Malabar area are similar to Medium and Minor, in Travancore-Cochin area Under the Second Five Year Plan it is proposed to take up a number of new irrigation schemes and also to complete the schemes which were in progress at the end of the First Plan period The total cost of the scheme is Rs. 47.60 lakhs This is expected to benefit about 15,000 acres The following schemes are programmed :

KOZHIKODE DISTRICT :

1 Constructing a vented dam across Manalathazham-canal

2. do vented dam across Kaithu Vazhipadom thodu.

3 do Outfall sluice in Morazha Kannapuram.

4. do Ananthavoor village.

5. do vented dam in Vilayathur swamp.

6 Constructing a vented dam in Kondotty.
7 do a dam in Thalakulathur amsom.
8 do. a dam across Periyapuram.
9 do a dam across Kadalundi
10. Other Irrigation schemes in Kozhikode District.

PALGHAT DISTRICT

1 Constructing a vented dam across Chittathukara.
2 Restoration of Elanthuruthi tank
3 Constructing a vented dam in Thirunavaya village
4. do do in Ayancheri Cherapuram
5 do an anicut in Kudivil Thodu
6 do a vented dam in Muthukayal thodu
7 do do in Eravimangalam Amsom
8. do an anicut in Aliparamba village
9 do a reservoir across Varayai river.
10 Other irrigation schemes in Palghat District

CANNANORE DISTRICT

1 Constructing a dam across Packianthichal
2 do across Pavavalappilchal.
3. do in Parloth river stream
4 Constructing a vented dam in Kuravaichira
5 do an anicut in Valiathodu in Mavilayi
6. do a dam in Valiathodu in Mavilayi
7. do a dam in Kankol stream.
8 Constructing a dam in Oommanchira
9 do an anicut across Shiraya river in Bombrana village
10 do an anicut across Paiool river
11 do. a vented dam across Pattanchira
12 Extending a channel on either side of Neeliswar river in Kasaigod Taluk
13 Constructing a branch channel from left main canal of Shiriya anicut
14. Mundankandam in Thiikarpur village
15 Prevention of ingress of salt water—construction of a dam across Neeleswar river near Nambiarikal thodu
16. Other irrigation works in Cannanore District

3 Lift Irrigation

92. The Plan provides an amount of Rs 28 50 lakhs for lift irrigation schemes Thirty-two items of works as listed below

have been programmed so far. These works include completion of 20 works carried over from First Plan These schemes will benefit about 9644 acres of lands The capital cost per acre works out to Rs. 147 In addition to these, schemes costing Rs 14 58 lakhs are proposed to be drawn up for the river valleys of Pamba, Muvattupuzha, Chalakudy and Periyar.

QUILON DISTRICT.

Spillover· 1. Pannivelichira in Mallappallipuzhassery.
New Scheme 1. Suranad scheme in Kunnathoor Taluk.

ALLEPPEY DISTRICT.

Spillover 1. Lift Irrigation facilities to Chengaipadom.
2 do. to Neervilagompunja.
3 Providing lift irrigation facilities to Venmony.
4. do do Paddy fields Padanilam, Chengannoor.
5. do do. to Kuttoor Yelah.

New Scheme: 1 Kaviyoor Thottubhagom in Thiruvella Taluk
2 Lift Irrigation for promoting sugar cane cultivation :
i Pavukara.
ii. Vempala.
iii. Padinjarekara Nedumpuram pakuthy.

KOTTAYAM DISTRICT.

Spillover: 1 Vallom Lift Irrigation Scheme.
2 Chewwara East do.
3. Pulіampally do.
4. Veliathunad East do
5 Lift Irrigation facilities to Kongarapally.
6. Ramamangalam Lift Irrigation Scheme(No 3)
7 Verandakapadam do.
8. Murathodu Lift Irrigation Scheme.
9 Piravom do.
9. Kakkad do.
11. Pazhoor do.
12. Mekkadambu do.
13. Mechur do.

New Scheme: 1 Lift Irrigation to S No. 587/4 Wadayar Village, Vaikom.
2. do in Kottayam Taluk—Pulikal Kadavu in Arumanur kara.
3 do in Meenachil Taluk—Prayer fields Kidangoor East & West.

TRICHUR DISTRICT

Spillover: 1 Kuzhur Lift Irrigation Scheme.

New Schemes: 1. Mangalam Estate do.

2 Lift Irrigation in Mukundapuram Taluk (Poovathussery Scheme)

3 Lift Irrigation in Talappilly Taluk (Desamangalam Scheme).

4. Kuzhur Comprehensive Scheme.

4 Minor Irrigation

93. Irrigation works which benefit an area of 200 acres and less, and above 5 acres are classified as Minor Irrigation Works. The economic limit of the cost of minor irrigation works is fixed at Rs 250 per acre of the area benefited. Minor Irrigation Works in the Travancore-Cochin area are attended to by the Department of Local Bodies and those in the Malabar and Kasaragod area by the Public Works Department Steps are being taken for unifying the agency for the execution of Minor Irrigation Works in the two areas

MINOR IRRIGATION WORKS INCLUDE —

94. (1) *Surface Percolation wells*, including construction of new wells and deepening old wells, any improvement like re-excavation, boring etc , works calculated to increase water supply and water lifting appliances like Rahats, persian whee s and pumps.

95 (2) *Tank and Channels.* These include surface storage and gravity irrigation works Extension and improvements to old tanks and channels as well as construction of new tanks dams and bunds, etc

96. A provision of Rs 72 0 lakhs is made in the Plan for Minor Irrigation Works About 810 works are proposed to be taken up for execution The total area expected to be benefited during the Plan period is 42,000 acres.

5 Ground Water Exploration Project—Tube Wells

97 The object of the scheme is to explore the possibilities of ground water for irrigation purposes by means of tube wells According to the terms and conditions suggested by the Government of India, the cost of the successfully completed tube wells will have to be determined at site and the State Government will be required to pay the cost of boring to such depth only as is required to obtain a discharge of 20,000 gallons or more per hour, for a tube well. A provision of Rs. 2 50 lakhs is included in the Plan for this purpose

3. ANIMAL HUSBANDRY

1. New I. C. A. R. Schemes.

98. The following research schemes will be started under the joint auspices of the State and the I C A. R:—

(a) *Cross-breeding research.*

99 The I C A. R. has a comprehensive scheme for the whole of India for conducting research on cross-breeding for the purpose of improving the milk yield of our cattle and at the same time preserving their capacity to withstand local conditions A net-work of research units will be spread out all over the country with a central station to assist and direct them. Five hundred cows each in the Headquarters and sub-heaquarters areas will come within the scope of the scheme These cows will be artificially inseminated with the semen of Jersey bulls, and the case history carefully recorded and followed. Artificial insemination will be carried out not only at the centres, but also at owners' premises, the only expense for the owner being payment of bus fare for the subordinate of the Department of Animal Husbandry who attends. The plan provision for the scheme is Rs 1.40 lakhs

(b) *Grading up the local cows—Comparative study of progenies.*

100. The object of the scheme is to find out whether grading of the local indigenous cattle with Sindhi or cross-breeding with Jersey will give more satisfactory results as regards the production of milk The plan provision for the scheme is Rs 2 60 lakhs

(c) *Investigation into the causes of delayed Maturity in livestock*

101. Cows in this State mature very late and the calving interval is also longer than that of foreign cattle In order to draw up a co-ordinated plan for tackling this problem it is necessary that a systematic survey on delayed maturity and its causes should be conducted under different conditions of management, environment and feeding. The Plan provision for the scheme is Rs. 0.24 lakh.

(d) *Improvement of desi strains of fowls.*

102 The idea is to study the potentialities of the improved desi fowls offered by the Indian Veterinary Research Institute under conditions prevailing in the State. The Centre is located at the Government Poultry Farm, Ollukara The Plan provision for the scheme is Rs. 0.51 lakh.

2. Cattle Shows.

103. To give publicity to the activities of the department Cattle shows will be organised with the following objects, (1) to declare the best animals under different categories in the

State; (2) to give sufficient encouragement to their breeders by awarding prizes and certificates of merit, and (3) to persuade more people to follow the examples of the breeders of the merited animals. There will be a State Show and 7 District Shows in each year A provision of Rs 2 36 lakhs is included in the Plan for the purpose.

3. Supply of Mineral Mixture.

104 In order to popularise the use of mineral mixture to supplement cattle feeds available in the State, the Department of Animal Husbandry will purchase and sell at 2/3 cost 190 tons of mineral mixture during the Plan period. The cost of the scheme is Rs 1 15 lakhs of which Rs. 0 77 lakh will be recovered by the sale of mixture. A provision of Rs 1 15 lakhs is included in the Plan.

4. Veterinary Hospitals & Dispensaries.

105 The scheme provides for the opening of 38 new institutions Any further extension required will be provided for under the Community Projects Programme. A provision of Rs. 5 82 lakhs has been included in the Plan

5. Conversion of Stockmen Stations into Veterinary Dispensaries

106. In stations where qualified veterinary surgeons could not be provided on account of excessive cost or non-availablity of doctors, stockmen stations have been maintained in the erstwhile Cochin State These stations will be upgraded into dispensaries. The Plan provision for the scheme is Rs 0 56 lakh

6 Clinical Laboratories.

107 For the immediate identification of specimens and for scientific and confirmatory diagnosis laboratories are essential in the major veterinary hospitals Three hospitals will be equipped with laboratories to start with. The Plan provision is Rs 0.33 lakh

7. Starting of Artificial Insemination Centres with six Key Villages each.

108 The Key Village Scheme is an organised large scale livestock Development programme for the whole of India The experts in gynaecology have recommended that this scheme should continue to be the most important instrument for Livestock Development The object is to produce Bulls of approved breeds to overcome the shortage of bulls, to grade up the local stock and to bring in Animal Husbandry condition in compact area. At present there are five Key Village Centres in Travancore-Cochin area and during the Second Five Year Plan period it is proposed to start five new Key Village Centres. In the Malabar area, there is no Key Village Centre at present Therefore it is proposed to open three Key Village Centres in the Malabar area during the Plan period. An urban Artificial Insemination Centre

is also proposed to be started attached to the District Livestock Farm, Thiruvazhumkunnu. The Artificial Insemination Centre at Palghat is also proposed to be expanded into a Key Village Centre of all India Pattern. The financial target is Rs 13.03 lakhs

8. Fodder Farms.

109. The scarcity of fodder in the State is a limiting factor in the development of livestock. Two fodder farms are now in existence, one at Kodappanakunnu in Trivandrum and the other at Ollukara in Trichur. It is proposed to expand the area under cultivation. The Plan provision for the scheme is Rs. 0 8 lakh.

9. Purchase of Microscope.

110. The object of the scheme is to purchase microscope for the use of the important Veterinary Institutions where there are no microscopes, to facilitate quick diagnosis treatment and control of diseases. The proposal is to purchase 1 microscopes during the Plan period. The financial target is Rs 0.06 lakh.

10. Livestock Research Station.

111 This scheme is a part of the Government of India's plan for establishing 18 Research Stations in the States within the period of the Second Five Year Plan The object of the scheme is to conduct research in problems relating to Livestock Breeding, feeding and disease control and for preparation of biological products for the effective control of contagious and non-contagious disease in livestock

112 The scheme will be started from the beginning of 1957-58 i e. the second year of the Plan and will continue for the remaining period of the Plan.

113 Since technical personnel and other facilities of the Veterinary College of the State have to be utilised for the functioning of the Research Station, the scheme will be located near the Veterinary College

114 The Research Station will comprise 4 Divisions (1) Pathology, Bacteriology and Parasitology (2) Nutrition (3) Genetics and (4) a separate section for the preparation of biological products.

115 The Research Station will be under the immediate control of the Principal of the Veterinary College Each division of the Station will be under the technical control of the Professor of the respective subject in the Veterinary College Each Section will be staffed with a Research Assistant and a Laboratory Assistant Since the preparation of biological products is intended for the prompt supply of vaccine and serum for combating with the contagious diseases prevalent in the State, the Director of Animal Husbandry will be the immediate controlling authority of the Biological Section of the Station The financial target of the scheme is Rs 2 88 lakhs.

11. New Poultry Farms and Improvement to the existing Farms.

116. At present there are three Government Poultry Farms in the State of Kerala, one at Kodappanakkunnu (Trivandrum District), another at Ollukara, (Trichur District) and one at Mundayad, (Cannanore District) The proposal for the improvement of the two Poultry Farms at Trivandrum and Trichur and for the starting of two new farms at Quilon and Kottayam during the Second Five Year Plan has been approved by the Government and in 1956-57 action has been taken for the starting of a new farm at Quilon In 1957-58 a new farm at Kottayam will be started

117 In the Malabar area there is only a District Poultry Farm, at Cannanore (Mundayad) and this farm is situated about four miles east of Cannanore The number of birds in the farm is about 400 of Rhode Island Red and White leghorn including cocks and chicks Periodically birds are distributed from the farm to the N E S. Blocks, but all the demands cannot be met The accommodation facilities in the farm are very poor There are no scientific laying or rearing houses or buildings for the accommodation of officers and quarters. Despite all these, the farm is located in an excellent place where future development is possible and indispensably essential. In view of the above facts it is proposed to improve the existing Farm at Mundayad and to start two new poultry farms one at Kozhikode and the other at Palghat with a foundation stock of 100 layers in each farm The financial target of the scheme is Rs 7 67 lakhs

12. All-India Poultry Development Scheme.

118 Twenty centres are proposed to be started during the Second Plan period The financial target of the scheme is Rs. 6 60 lakhs

13. Training of Auxiliary personnel (Stockmen)

119. The State will soon be covered with N.E S Blocks, each of which requires one stockman for extension work More compounders will also be required A training establishment capable of turning out sixty trainees each year will be established The financial target of the scheme is Rs 2.06 lakhs.

14. Specialised training of Officers.

120 Short courses are essential to give specialised training to officers of the Department who have to be put in charge of specialised services. For this purpose a provision of Rs 0 61 lakh has been included Ten officers will be trained in institutions outside the State

15 Administration.

121 To cope with the increase in work in the office of the Director of Animal Husbandry, on account of the introduction of several development schemes, the expansion of his office, and

the establishment of a separate Key Village Officer with the requisite staff are considered necessary A provision of Rs. 2 00 lakhs has been made for this purpose.

16. Improvement of the existing livestock-cum-Dairy Farm.

122. There are three livestock-cum-dairy farms in the State, one in Ollukara (Trichur District) one at Kodappanakunnu, (Trivandrum District) and the third at Thiruvazhumkunnu, (Palghat District) These farms are run with the object of developing the cattle wealth by the adoption of scientific methods for feeding, breeding and disease control and for providing better milk supply The farms at Trivandrum and Ollukara will be improved The farm at Ollukara will also serve as a model farm for teaching practical Dairying, management of Livestock to the Veterinary College students and Stock men trainees The financial target of the scheme is expected to be Rs 3 82 lakhs.

17. Dry Stock Farm.

123. Acute difficulty is felt by cattle growers in the State in maintaining cows in the dry period. The difficulty is all the more acute, in respect of cattle grown in towns. The only means by which this difficulty can be overcome is by opening dry stock farms This cannot be left entirely to private enterprise, since it will be difficult for private entrepreneurs to find the land required, nor would such a venture inspire confidence in the minds of the owners of cattle If sufficient facilities are not provided under Government auspices, the alternative would be for the owner to sell the cattle to the butcher There are two such Government farms now in existence one in the Chalakudy Community Project and the other at Kodappanakunnu. Each has a capacity of 50 animals It is proposed to add two more dry stock farms during the plan period. These farms will have a capacity of 200 cows A fee at the rate of Rs. 10 per head per mensem will have to be paid by the owners of cows until the 6th month of pregnancy From the 6th month of pregnancy the cows will be fed with concentrates including mineral mixture at an estimated cost of Rs 4 per cow per mensem, 50% of which will be borne by the Government The owners will also have to bear the to and fro transport charge and other expenses incidental to the tethering of the animals in the farm. The financial target of the scheme is Rs 4 12 lakhs

18. Gaushalas.

124. There are three private Gaushalas in the State. They are at Mattancherry, Alleppey and Tellicherry. These have about 200 animals on their rolls and they produce about 225 lbs. of milk daily There is no proper breeding control, and scientific management and disease control are not adequately attended to. A sum of Rs. 1 67 lakhs was proposed to be included in the Plan for giving grants to these Gaushalas. As the managements of the Gaushalas have not agreed to the stipulations of Government in the matter, the scheme has since been deferred.

19. Development of milk Production in Urban areas

125. It is proposed to establish urban milk supply societies. Loans will be granted to the members of the societies for the purchase of milch animals with a view to augmenting milk production. The financial target of the scheme is Rs. 0·39 lakh.

20. Installation of Pasteurisation Plant.

126. The Milk Supply Union at Kozhikode is at present distributing the milk produced in that town and its surrounding areas. In order to achieve increased production and consumption of milk, it is proposed to start new feeder societies in interior Villages. As the milk from these villages will have to be carried to long distances and preserved for some hours before distribution it is necessary to increase the keeping quality of milk by pasteurisation. The Plan provides Rs 0·28 lakh for the installation of a pasteurisation plant by the Union,

21 Establishment of cattle-breeding societies.

127 A cattle-breeding society will be organised to improve the strain of cattle belonging to the members of the society The society will be supplied with stud bulls of the approved breed free of cost. A sum of Rs 0·05 lakh has been provided for the purpose

22 Control of Cattle Diseases

128. The location of Veterinary Dispensaries in villages enlighten the common masses regarding the care, management, treatment, control of cattle epidemic, poultry development etc., and there is increasing demand from every nook and corner of the State for Veterinary aid At present the number of Veterinary Hospitals in the Malabar area is two During the Second Five Year Plan period, it is proposed to establish a mobile Veterinary Dispensary, six Veterinary Hospitals and 10 Veterinary Dispensaries The sum of Rs 0·53 lakh is provided under the Plan.

23 Scheme for the Distribution of Breeding Bulls

129 The object of the Scheme is to purchase the bulls and to entrust them to the selected custodians for breeding purposes The custodians will have to feed these bulls at their own expense No grant will be given to them by the Government After a specified period, if the bulls are maintained properly, the Government will declare the ownership of the bulls to the custodians and from that date onwards they will be the owners of the bull. During the Second Five Year Plan period 24 bulls will be distributed in the Malabar area The financial target of the scheme is Rs. 0 24 lakh

24. Improvements to the existing Livestock Farms (Soil Conservation in Hilly Regions)

130. The object of the schemes is to introduce soil conservation measures in an area of 300 acres in the District Livestock Farm, Thiruvazhamkunnu during the plan period An amount of Rs 0·20 lakh had been sanctioned by the Madras Government and the work has been partly completed The remaining work will be taken up in 1958-59 and the financial target is Rs. 0 20 lakh. Thus the total allotment for the purpose is Rs 0 40 lakh.

25 Co-operative Dairy Development

131 To increase the supply of milk in the Trivandrum City and to reduce its cost so as to bring it within the reach of the lower income Groups, it is proposed to develop the Trivandrum Milk Supply Union on modern lines for handling 250 maunds of milk per day. The financial target for the scheme is Rs. 6 41 lakhs.

26. Supplementary Extension Centres.

132 Two supplementary Extension Centres will be established for utilisation of bulls produced in Key Villages. The financial target for the scheme is Rs. 1·49 lakhs

27 Subsidy to Private Poultry Breeders.

133 The object of the scheme is to encourage private parties in the poultry industry by giving financial aid Selected poultry breeders or Associations will be given subsidy During the Plan period subsidy will be given to two such breeders or Associations at the rate of Rs 1,000 each. The amount provided for the purpose is Rs 0·02 lakh.

28 Appointment of Additional Stockmen

134. Six additional Stockmen are proposed to be appointed and a sum of Rs. 0·25 lakh has been included in the Plan

29 Quarters for the staff in Veterinary Institutions

135. The object of the scheme is to provide quarters in the Veterinary Hospitals at Kozhikode and Palghat for the staff. It is proposed to construct the above quarters in 1958-59 The amount allotted for the above scheme is Rs. 0 21 lakh

30. Electrification of Veterinary Institutions.

136. The object of the scheme is to electrify the Veterinary Hospitals at Kozhikode and Palghat. The amount allotted to this scheme is Rs 0·01 lakh.

31. Veterinary College.

137 A very serious limiting factor in the Development of Animal Husbandry is the shortage of veterinary graduates The expansion of activities mentioned above, as also the requirements of the N. E S. Blocks call for an ambitious programme of training A Veterinary College has already been started in the State in the year 1955-56 The College will admit seventy students this year for a course which will extend for 4 years.

The total cost of the scheme is Rs. 48·0 lakhs of which Rs. 38·0 lakhs for completing the scheme has been carried over to the Second Five Year Plan.

32. Cattle Sterility Scheme.

138. The objects of the scheme are: (i) to improve the facilities for teaching Animal Gynaecology and obstetrics in the Veterinary College ;

(ii) to survey the incidence and causes of Cattle sterility with a view to evolve appropriate remedial and prevention measures in the field of Physiopathology of reproduction. The Cattle sterility scheme is proposed to be started in the Veterinary College, Ollukara. Fifty per cent of the expenditure will be met by the Indian Council of Agricultural Research as grant. A provision of Rs. 0 89 lakh has been included in the Plan.

33. Scheme for the Opening of a Goat Farm at Tellicherry.

139. The object of the scheme is to undertake experimental breeding in evolving strains of goats for milk production by cross breeding the local types with the Saanen breed. Fifty per cent of the recurring expenditure will be shared by the Indian Council of Agricultural Research. A provision of Rs. 1.85 lakhs has been included in the Plan

34. Scheme for the Propaganda Unit.

140 The Animal Husbandry department is lacking in propaganda and publicity A provision of Rs 0 85 lakh is included in the Plan for this scheme.

4. FORESTS

1. Education and Training.

141 This scheme aims at giving adequate training to additional staff to be appointed for working out the various Plan schemes, as also for giving refresher courses and specialised training to competent officers of the Department. Five Assistant Conservators, 12 Rangers and 50 Foresters will be so trained. The provision for the scheme is Rs. 2 84 lakhs.

2. Forest Engineering.

142. The Plan provides for the setting up of a Forest Engineering Branch for taking up the development works, such as construction of roads, bridges and buildings A provision of Rs. 4 0 lakhs is made under this item for the Plan period

3. Research and Formation of Museum and Forest films.

143. Very little is known about the properties and use of the different kinds of minor forest products such as oil seeds, tanning and dyeing materials, medicinal plants etc., which may form potential sources of large and small scale industries of the future Detailed investigation of the products is likely to yield far-reaching results. It is proposed to conduct field experiments under the supervision of the State Silviculturist.

144. The existing museum will be expanded suitably so as to be a standard one. It will contain a representative collection of all kinds of forest produce, animal and vegetable; standard reference books dealing with forestry and allied subjects will be procured, and a library and research centre established with the Museum.

145. The existing silviculture division at Malayattur will be expanded. Additional staff will be appointed to cope with the requirements of the growing division. Collection of data and statistics regarding silvicultural characteristics of at least the important species, preparation of yield and volume tables for them, and such other vital matters relating to the Statistical side of forestry require very close attention. A beginning was made two years ago with the formation of a Silvicultural Unit under a State Silviculturist This requires expansion on modern lines for achieving the desired results. The total cost of the formation of the museum and the expansion of the Silvicultural Unit will be Rs. 2 85 lakhs.

4 Improvement of Game Sanctuaries and Formation of National Parks.

146 The present Game Department is functioning as an adjunct to the territorial Forest Division of Kottayam and is subject to the control of the Divisional Forest Officer, who is the *ex officio* Game Warden Consistent with the National importance of Game preservation adumbrated by the Board for Wild Life of India, there is scope for expansion of this nucleus It is therefore proposed to convert the Game Sanctuary at Periyar into a National Park A National Park will also be established in the Peechi Reservoir area. Three more units are intended at Neyyar River Valley, Vazhani cum Peechi and Malampuzha.

A separate Game preservation branch would be started as a branch of the Forest Department It is also proposed to construct middle class hotels in all Game Sanctuaries, so that people of ordinary means who visit the Game Sanctuaries may have facilities to stay. An amount of Rs. 5 lakhs is provided in the Plan

5. Afforestation (Pilot Experimental Scheme).

147. The grass land formations in the State are mostly at an altitude of 2000 to 4000 feet and are extensive, covering about 100 square miles These are the results of ecological factors and represent as such, a climax type for the locality. The transformation of this type with association of broadleaved species, to be followed up with successive stages of development leading to a type of productive normal forest suited to the site is the technical problem to be tackled The technique applied will be to replace the grass with a vegetal cover of broadleaved species in the first stage. This would be followed by the planting of suitable tree species

148. The grass lands present also the problem of strong winds, excessive drought during summer months and fierce fires following it. These by themselves encourage conditions fit for the grasses to thrive Thus, side by side with any attempt for the replacement of grass with vegetal cover, protection from wind by the planting up of wind belts along suitable directions and strict fire protection have also to be organised. The drought conditions could be mitigated by the above works but has to be supplemented by contour trenches bunding and plugging of gullies at proper points.

149 During the plan period it is proposed to attempt a pilot scheme covering 2500 acres in the Mount Plateau and Vandanmede regions in the Kottayam District. The cost of the scheme is Rs 4 00 lakhs

6. Cashew Plantation.

150. The scheme envisages the afforestation of 15,000 acres with cashew at a cost of Rs 25 0 lakhs during the plan period. Only lands not fit for any other type of forest growth will be utilised for this purpose In the Trichur District, where the scheme is proposed to be located mostly, there are extensive tracts of barren, unproductive reserves along either side of the Trichur-Shoranur Railway line Most of the reserves of Varavoor, Kadangode, Kallampara, Thiroor, Killannoor and Pullamkandam beats of Trichur Division are of this type. Similarly large extensive tracts clear-felled in the Malayattur Division have been lying barren for some years Past attempts to restock part of the above areas with useful timber species have failed Only species like cashew which can thrive well even on poor soil can be grown here

7. Expansion of Planting Commercial Timber.

151 *Teak and other Hardwoods*—It is proposed to raise plantations of teak and other hardwoods in 2000 acres, at a cost of Rs. 1 36 lakhs

152. *Under Planting*.—The financial target is Rs. 0 12 lakh.

8. Development of Modern Technic of timber extraction and communication.

153. Equipments like cross-cutting saws, small type bull-dozers, mechanical skidders etc, will be purchased in order to implement the scheme. Since the object is to reduce cost of extraction of timber from places hitherto unworked, such operations will be generally confined to the more inaccessible localities. The use of crosscutting saws will however be enforced generally in all localities so as to minimise waste in conversion The cost of the Scheme is Rs 2 0 lakhs.

9. Acquisition and Development of Private forests in Malabar including survey demarcation and Development.

154 It is proposed to acquire private forests in the Malabar area and for their acquisition, development and demarcation, a provision of Rs. 40·95 lakhs has been included in the Plan.

10 Roads, Bridges and Buildings

155. Any Development scheme is bound to fail if adequate facilities for communication and housing of the staff are not provided. To tap the resources of the forest areas which are now considered inaccessible and to exploit them on an economic and sound basis, approach roads are necessary The main outlets should be all-weather roads since water transport cannot be depended upon. Similarly amenities for the staff in the form of residential quarters and camping places have to be provided for the efficient working of the forests, as forest operations never succeed except under the eye of the staff, whose attention can be ensured only with housing facilities at site Sixteen roads and 217 buildings are proposed to be constructed. The scheme would cost Rs 18·00 lakhs

11. Regeneration and opening of softwood Plantation including matchwood.

156. Regeneration and rehabilitation of food production areas which have reverted to forest would have to receive special attention from the Forest Department in future years. Wanton clearing and unscientific cultivation have depleted the soil, rendering regeneration difficult Regeneration has been confined to teak and a few other valuable species hitherto Rapid development of wood-based industries such as plywood, matches etc, leads to fresh demand for the soft-wood species To cope with the increasing demand larger areas have to be regenerated artificially with suitable softwood species. It is therefore proposed to raise plantations in an area of 6000 acres with soft-wood and miscellaneous species during the Second Five Year Plan period. The estimated cost is Rs 7·00 lakhs

157 There is growing demand for softwood from the match industry and the present stock is inadequate to meet the demands in full. The proposal is to raise matchwood plantations in 3000 acres, 500 acres in the Palghat District and the rest in the Kozhikode district at a cost of Rs. 3 lakhs.

158. The total provision for the scheme is thus Rs. 10 00 lakhs.

12. Cashew Plantation

(FINANCIAL ASSISTANCE)

159. The scheme provides for assistance to individuals for raising cashew on private lands and lease of Government lands under the Revenue Department for cashew Plantation.

160. Persons who set apart contiguous blocks of not less than 3 acres for cashew cultivation will be given loans amounting to Rs. 150 per acre. The loans will be free of interest for the first five years after which they will bear interest at the usual rates. The loans will be repayable in 10 equal annual instalments from the year in which the last instalment is paid by Government.

161. Government lands wherever available, will be leased in bits of not less than 3 acres for cashew cultivation. The lease will be for a period of 20 years Loans will be given on the same terms as in the case of private lands. As far as possible the loans will be in kind, e. g., planting and fencing materials etc.

162 The financial target of the scheme is Rs. 12.12 lakhs and the area expected to be brought under the scheme is about 8,000 acres The target for each district is tentatively fixed as 808 acres in the Trivandrum District, 889 acres in Quilon, 1050 acres in Kottayam, 888 acres in Alleppey, 1535 acres in Trichur, 889 acres in Palghat, 1212 acres in Kozhikode and 808 acres in Cannanore District. Out of 8,000 acres, 2000 acres will be Government lands

5. SOIL CONSERVATION

163. Except the narrow coastal strip extending two or three miles to the east from the sea all the other lands in Kerala are very undulating, and rising higher and higher as one goes eastwards Some of the lands put under crop in Kerala have a 40% or 60% slope A large percentage of the lands under crop in Kerala will be considered in other States as absolutely unsuitable for growing annual crops This precipitous slope combined with heavy rain fall results in soil erosion which is very serious menace in the state This has resulted in the progressive depletion of the fertile top soils from the hills, thereby reducing the cropping power of those lands

164 In January 1955, a soil conservation project was inaugurated in the state with a view to undertake soil conservation work particularly in the areas that have been deforested and given for cultivation The target for conservation during the Second Plan period is 20,000 acres.

165. It is also proposed to establish a soil conservation Research Station to investigate the peculiar problems of soil conservation in the state and to evolve suitable methods for controlling soil erosion. It is also proposed to open a number of pilot demonstration projects in cultivated lands to demonstrate soil conservation methods to the agriculturists. Seven such pilot projects have been prepared for execution during 1958-59.

166. The total provision for the scheme during the Plan period is Rs 25·50 lakhs.

6. FISHERIES

167. Under "Fisheries", the following schemes are included in the Plan :-

1. Loans to Fishing Co-operatives.

168. Various measures adopted in the past to give financial assistance to fishermen for the purchase of boats and fishing tackle have failed because of the necessity to insist on proper security for the loans granted and the inability of the fisherman, on account of his poverty, to give this security. In order to cut this vicious circle, it is proposed to take the risk of giving loans to fishermen's Co-operatives upto a certain multiple of their subscribed share capital, without any security other than the assets of the society and the personal security of the office-bearers. The fishing implements also will be treated as security for the loan. A provision of Rs. 10. 20 lakhs has been made in the Plan for this purpose

2. Supply of fishery requisites to Fishermen.

169 The present scheme is for direct supply of timber by Government to fishermen's co-operatives Timber for the construction of boats or catamarans will be supplied to the fishermen's Co-operatives The cotton yarn now in use by fishermen is not very effective in fishing operations. In all countries which have an advanced fishing industry, Nylon nets are used Besides being more durable and lasting, these nets are found to be very effective in leading to a substantial increase in catches. The scheme also aims at distributng Nylon yarn to fishermen under subsidy and hire purchase system In the supply of Nylon yarn preference will be given to those personnel who take mechanised boats under the scheme Improvement of fishing crafts. The subsidy proposed is 33 1/3% of the cost of Nylon

170 The total Plan provision for the supply of timber and Nylon yarn is Rs. 5 59 lakhs

3. Scheme for the Stocking of Ponds with Fish.

171 The State abounds in ponds and lakes of different sizes. In the coastal areas, almost every home-stead has a pond attached to it. The reservoirs or dams built for irrigation and power purposes and minor irrigation tanks spread out all over the State, as also the house-hold tanks mentioned above, are suitable for fish culture. Fish is an item of food for the majority of the population in the State, but it is not always available in fresh conditions. It is felt that if all the ponds and tanks mentioned above were stocked with fish it would considerably raise the food supply of the State, and more significantly, the nutritional value of the food consumed. The technical problem met with in the execution of this programme is the dearth of suitable indigenous varieties which will grow fast. Exotic varieties have therefore, to be imported from outside the State, but even these varieties, though they grow fast, do not breed in the plains,

It is felt, however, that in the lakes in the High Ranges these varieties might breed The schemes provide for annually importing fingerlings of Labeo and patla from other parts of India and stocking them in tanks and ponds maintained by the State These will be distributed to intending fish-growers at a nominal cost for culture in private fish ponds An attempt will also be made to breed them in the reservoirs in the High Ranges A provision of Rs 3 11 lakhs has been included in the Plan for this scheme.

4. Scheme for the Construction of Breakwaters.

172. Except for the Cochin Harbour, the Munambom and Neendakara bars, the entire coast line of Kerala is an open road-stead with no landing facilities. The fishing boats make out to sea from all over the coast line and are laid up on the beach In the season of the monsoons, however, when the sea is rough there is no convenient place from which the boats can take off or at which they can land in safety In the monsoon season, therefore, the fishermen crowd in places like Muttom, Vizhinjam and Thangasseri where partial protection from wind and surf is available because of the existence of small bays created by rocky promontories jutting into the sea. The protection thus afforded is quite insufficient The proposal in the Plan is to increase the protection available at Vizhinjam in the first instance by the construction of a breakwater 600 feet long at a suitable angle from the tip of the promotory extending to a depth of 26 to30 feet of water The breakwater will consist of rubble and boulders pitched in the sea with a width of 70 feet at the base and 30 feet at the top and extending to 12 feet above water level.

173. It is also proposed to levy a nominal fee of Annas four per day for every boat using the fishing harbour.

174 The fishing harbour is also essential to provide landing and mooring places for the power craft to be used under the Schemes for mechanised fishing

175 It is also proposed to construct a fishing harbour at Beypore

176 The Plan provision for the scheme is Rs 21 95 lakhs

5. Scheme for the Introduction of Ice plants.

(Ice storages and refrigerated transport)

177 There is considerable time lag at present between landing of fish on the shore and its reaching the consumers in the inland towns. This results in the deterioration of fish On days when good catches are available it is not always possible for the fishermen to market their entire catch. They are forced either to dry or cure part of the catch, and often to sell it at uneconomic prices If a chain of ice stores and iced fish storages are available for temporary storage, it will be possible to store excess fish for consumption on days on which the catch is lean. The stores'

of course, have to be linked up by means of a refrigerated transport system. The Stores and Plant will be leased out and worked by co-operative societies or fishermen's organisations.

178. The Plan provides for a freezing plant at Kayamkulam in addition to staff and facilities for the plant already existing at Trivandrum and Ernakulam; frozen stores at Kayamkulam, Kottayam, Munnar and Trichur; Ice Plants at Trivandrum and Alleppey (in addition to facilities to be provided under T. C. M Scheme for Ice Plant at Vizhinjam); Ice storages at Vizhinjam, Trivandrum, Kayamkulam, Alleppey and Azhikode; and iced fish storages at Vizhinjam, Alleppey, Azhikode and Changanacherry Insulated vans or boats will be based at Vizhinjam, Trivandrum, Alleppey, Kayamkulam, Ernakulam, Azhikode, Punalur, Changanacherry, Kottayam, and Trichur. It is expected that this net work of storages connected by insulated vans will provide quick transport of fish from the fishing centres to the consuming centres and for the storage of excess catch to spread it evenly all over the season.

179. There is no equivalent scheme in the Malabar area at present, except for an Ice and Freezing Plant at West Hill, Kozhikode. The sector from Cochin to Kozhikode and from Kozhikode to Kasergod is without any facilities for the preservation of fish in ice It is therefore proposed that two small Ice plants and storage units be established, one in the region south of Kozhikode near Ponnani and a second one in the northern sector at Cannanore. In addition to this, a simple storage will also be installed at Palghat to enable easy distribution of fish

180 It is also proposed to construct a Cold Storage and refrigeration Plant at Cochin (West Coast Fisheries) at a cost of Rs. 10 0 lakhs. The total provision of Rs. 21·55 lakhs for the above items of the scheme is included in the Plan.

6. Identification and Guide lights.

181 This scheme is intended to assist fishermen in locating their villages from the open sea at nights and in times of storm. At present there are no such identification lights. The fishermen use natural phenomena as distinguishing marks. Again there are now no guiding lights to lead the boats along side of the rocks and sand banks near certain fishing villages. It is proposed to provide these facilities at a cost of Rs. 1·15 lakhs.

7. Mechanisation of small fishing craft and improvement of fishing craft.

182. The technique and implements used by fishermen in Kerala continue to be the traditional ones in spite of the impact of civilisation and modern methods. It is felt that the change-over from manual to mechanical methods should be slow and should be with the full acceptance of the programme by the fishermen, if a sudden upsetting of the present balance is to be avoided. In the Plan period engines will be fitted in boats locally available or to be constructed. The fitting up of boats

with engines and the construction of new surf-riding boats suitable for mechanisation will be done at the boat-building yards of the Indo-Norwegian Project at Neendakara and new boat-building yard to be opened at Vizhinjam The private boat-building yards at Cochin and Palluruthy will also be utilised to the extent possible. The engines will be supplied to fishermen at a subsidised rate. Landing gear suitable for use in conjunction with mechanised boats will be purchased by Government and hired for demonstration purposes at different centres on the sea coast. A boat-yard will be constructed at Beypore during the Plan period The total cost of the scheme is Rs 8 36 lakhs.

8 Research Schemes.

183. Marine Survey Station, Vizhinjom, the Estuariane Research Station, Ernakulam, and the Freshwater Survey Station, Thiruvella are schemes spilling over to the Second Five Year Plan from the first Plan The provision included in this Plan is Rs. 2 19 lakhs

9 Development and Exploitation of Major Reservoir Fisheries.

184 Under this Scheme it is proposed to develop the fisheries of Malampuzha, Mangalam and Valayai reservoirs The development in the initial years will be intensive stocking of the reservoirs, and exploitation will be taken up by the issue of licences later. Fish ponds and nurseries are to be constructed on each dam site The total provision for the Scheme is Rs 0 50 lakh.

10 Salt Subsidy Scheme.

185. Under this scheme salt is issued to the fishermen from the various fish curing yards along the coast at a subsidised price The subsidy on salt and making salt easily available, give necessary incentive to fish curers to resort to fish curing yards and cure their catches in a hygienic manner The Plan provision is Rs 9 36 lakhs.

11. Rural Fishery Demonstration.

186. It is proposed to take up a speedy survey of all fishery resources and draw up detailed survey reports. It is proposed to demonstrate the advantages of fish culture in inland waters and thus bring all suitable water spreads under scientific fish culture. The entire Palghat Fort Moat will have to be converted into a fish farm during the Plan period. The plan provision is Rs. 0 63 lakhs.

12. Training of personnel.

187. Under this scheme the fishermen will get training in the use of new types of mechanised boats and the operation of engines. A training centre is opened at Beypore and every year 20 fishermen are given training in this institution. The Plan provision is Rs 1 83 lakhs.

13. Introduction of Power Fishing.

188. According to this scheme, groups of 15 or 20 boats will be towed by a power vessel into the open sea where the best fishing grounds exist. The mother ship will also enable them to stay long at sea and to minimise the time required in going to and returning from the fishing grounds A refrigerated carrier boat will be used to ferry back the catches from the mother ship to the harbour at intervals. Experiments along these lines have been conducted and have proved successful, not only in increasing the income of the fishermen but also in providing a reasonable return on the capital invested on the power boats and carriers. One such Unit consisting of a mother craft and carrier vessel is proposed to be based at Vizhinjam. The Plan provision for the Scheme is Rs. 2 85 lakhs.

14. Expansion of Fishery Technological Station.

189. The present Fishery Technological Station at Kozhikode is now housed in a rented building with no convenience It is therefore necessary now to construct a new building for the Station. It can be constructed in the Marine Biological Station compound at West Hill. A provision of Rs. 1.0 lakh is made in the Plan.

15. Estuariane Fish Farms

190. In view of the availability of plenty of brackish-water or marine water-logged areas in the northern Malabar it is proposed to convert suitable areas into fish farms like the Narakkal Farm in Travancore-Cochin area This will augment the supply of fish in these areas especially during the monsoon when there will be no sea fishing A provision of Rs. 1·00 lakh is included in the Plan.

16. Storage Sheds, Drying Stands, etc.

191. During the monsoon season, the concentration of fishermen at the bays is so heavy that they do not have proper facilities for keeping their boats and implements. For fear of theft and damage many fishermen stay away from these centres and prefer unemployment to the hardships which they have to suffer at these centres. It is proposed to provide at Government cost storage sheds and drying stands and connected facilities at Vizhinjam to assist these fishermen. A nominal fee will be charged for the services rendered The total cost of the Scheme is Rs 0 95 lakh.

17. Fish Marketing and construction of model Fish Markets.

192 The Scheme provides for the construction of model fish stalls to demonstrate the marketing of fish under hygienic condition The total plan provision is Rs. 0.65 lakh and this is proposed to be utilised at Kozhikode.

18 Fresh-water Aquarium.

193. To make the Malampuzha reservoir, which is even now a tourist centre, more attractive and also to popularise fresh-water fish culture, it is proposed to open a small fish aquarium at Malampuzha. A sum of Rs. 0.50 lakh is provided for the scheme.

7. CO-OPERATION

194 The Co-operative movement in its long course in many countries has shown itself remarkably adaptable to a wide variety of social and economic conditions The development of the co-operative movement is therefore an effective, practical, social and economic re-organisation of the country It should win popular recognition Co-operation will be genuine only when it is an attempt by the people to do things themselves During the Second Five Year Plan, this State has aimed at the progress of the societies and framed the plan to translate into action the main recommendations of the All India Rural Credit Survey Committee.

195. The programme is all round development in the movement by strengthening administration, education and training, as well as connecting the links between credit and marketing societies and organisation of Co-operative Farming, Co-operative dairying, etc. A sum of Rs. 120 99 lakhs under Co-operation and Rs. 6 41 lakhs under Animal Husbandry has been provided for the development and strengthening of the co-operative movement in the State.

I. RE-ORGANISATION OF CREDIT

1 The State Co-operative Bank

196. The State Co-operative Bank will be reorganised as suggested in the Rural Credit Survey Report Membership in the Bank will be confined to Central Co-operative Banks and such other Societies as would have direct dealings with it, thus bringing down number of individual members to the minimum desirable. The optimum level of share capital at the end of the Plan period will be raised to Rs 50·00 lakhs, Government contributing 51% of the share capital The loan operations of the State Co-operative Bank will be limited to short and medium term loans and demands for agricultural loans will receive first priority. One third of the seats in the directorate will be reserved for Government The Supervisory and managerial staff will be adequately strengthened according to necessity and increase in volume of work.

197. A provision of Rs. 3·21 lakhs has been made for this scheme in the Plan

2. Central Co-operative Banks.

198. There are at present the Cochin Central Co-operative Bank for the Trichur District and the Malabar District Co-operative Bank at Kozhikode with its branches in Cannanore and Palghat Districts for the Malabar area Branches of the State Co-operative Bank have been started at Alleppey and Kottayam. These branches will be converted into Central Banks in due course. Government will take shares in the Banks and share the cost on account of additional supervisory staff. An amount of Rs. 0·48 lakh has been provided in the Plan.

3. Central Land Mortgage Bank and Primary Land Mortgage Banks.

· 199. By converting the Travancore Credit Bank, a Co-operative Central Land Mortgage Bank has been organised to deal with long term operations on the security of landed properties. The activities of the Bank will be entrusted with the Central Bank at the District level, organising separate section with separate trained staff for expeditious disposal of loan applications. The Cochin Land Mortgage Bank in Trichur District is now attending to the needs of long term funds in the District The four land mortgage banks in Malabar area will continue as Primary Land Mortgage Banks. With the expansion of the activities of the Land Mortgage Bank more primary land mortgage Banks will be established The Land Mortgage Bank will be given financial assistance for entertainment of additional staff for the re-organisation of the Land Mortgage Banking One more primary Land Mortgage Bank will be established in Malabar area during the Plan period A sum of Rs 0·41 lakh has been provided in the Plan for this scheme

4 Large Sized Credit Societies

200. In conformity with the recommendations of the Rural Credit Survey Committee, Large-sized Credit Societies will be established or existing ones re-organised according to local conditions. Three hundred large sized credit societies will be organised during the Plan period by reorganisation or amalgamation of the existing societies, the area of operation of each extending to one Panchayat and membership open to all persons residing in that area. Each society will have a minimum share capital with optimum to be reached within a specified period. The State Government would contribute directly or indirectly to the share capital of larger sized credit societies The Primary Societies will largely confine their operations to crop loans and will be affiliated with the marketing society. The amount allotted for the scheme is Rs. 5·498 lakhs.

201. The amalgamation of small and weaker societies will be undertaken by District Committees constituted for the purpose. These committees are functioning in the five Co-operative districts of Trivandrum, Quilon, Alleppey, Kottayam and Trichur.

5. Godowns.

202. A few of the large-sized credit societies will be provided with godowns where the members can store their produce. Government will give financial aid of Rs. 10,000 for each godown, 75% being loan and 25% subsidy. The physical target aimed at is 75 godowns at a cost of Rs 10·45 lakhs

6. District Committees.

203. With a view to revitalising the co-operative credit structure and largely availing of credit facilities offered by the Reserve Bank of India and thereby increasing agricultural production, the scheme envisages the amalgamation of existing small

credit societies in villages into strong economic units. For this purpose, Government have sanctioned the formation of five District Amalgamation Committees in the former T. C area with the Deputy Registrar of the District as the Chairman of the Committee and some leading non-official co-operators of the District as the other members The District Committees will meet periodically, chalk out programmes of work, hold meetings, move from taluk to taluk, arrange for general body meetings of societies and arrive at concrete results in the amalgamation campaign. A sum of Rs 0 42 lakh is included in the Plan towards Travelling allowances.

7 Cost of Administrative Staff.

204. For the implementation of the scheme of integrated rural credit and Marketing and to supervise the work of the District Bank Supervisors and Inspectors it is considered necessary that there should be a special staff consisting of a Deputy Registrar, two Assistant Registrars and two Senior Inspectors They will also see that all the schemes under the Second Five Year Plan are fully implemented in the Malabar area The cost of the above staff will come to Rs. 3 065 lakhs for the Plan period

8. Subsidy to Primary Land Mortgage Banks

205. It has been found that the activities of primary land mortgage banks and the part played by them to relieve rural indebtedness have not been widely understood in rural parts It is therefore proposed that each Primary Land Mortgage Bank should have at least two supervisors to canvass loan applications and to supervise the working of the Banks The Banks will be given subsidy at the rate of Rs 125 per mensem for employment of each Supervisor. The cost will be met by the Central and State Governments on a 50 50 basis All the four Primary Land Mortgage Banks now functioning and the one proposed to be organised for the Wynad area in 1958-59 will be provided with subsidy on the above basis. The plan provision for this scheme is Rs. 0.24 lakh.

II. CO-OPERATIVE MARKETING AND PROCESSING.

9 Primary Marketing Societies.

206. In Agricultural marketing, co-operative effort has not progressed to the desired extent. The object of the scheme is the balanced and systamatic development of co-operative marketing and processing to the advantage of the producers. Thirty primary marketing societies will be organised at important production centres for agricultural products such as cocoanuts, rubber, pepper, arecanut, ginger, cashewnuts, tapioca and fruits and vegetables. Government would contribute to the share capital of all these societies, advance loans and grants for the construction of godowns and share the services of managerial staff. A provision of Rs. 3.706 lakhs has been made in the Plan.

10. Share Capital.

207. Besides the 300 large-sized Credit societies to be organised during the Plan period, 32 marketing societies are also to be organised commodity-wise. Government will also participate in the share capital of each primary marketing society to the extent of Rs. 1,000 and each District marketing society to the extent of Rs. 25,000. The State's contribution towards the share capital of all these societies and their participation in management are in accordance with the recommendation of the Rural Credit Survey Report. A provision of Rs. 9.90 lakhs has been made for this.

11. Godowns.

208. Each primary marketing society selected under the Plan will construct a godown at a cost of Rs 25,000 and each district marketing society at an estimated cost of Rs 50,000 The total cost of the scheme is worked out to be Rs 16·90 lakhs Forty-two godowns will be constructed during the Plan period.

12 Loans for Processing.

209 There is a provision of Rs. 10 50 lakhs for issue of loans to processing Societies or marketing societies undertaking processing activities as also for the purchase of processing equipments etc

13 Apex Marketing Society.

210 There will be an Apex Marketing Society at Alleppey to contribute to the working of the marketing societies and to advise them on policy matters, Government will take shares in the Apex Society also, give financial assistance for the construction of godowns and subsidise the cost on account of managerial staff A sum of Rs. 0 15 lakh has been provided for the same

14 Free Technical Staff.

211 In the initial stages of the working of processing societies in the Malabar area technical staff have to be employed. The services of these staff have to be given free to the concerned institutions. The cost has to be borne by Government and it is estimated to be Rs. 1 50 lakhs

15. Establishment of Co-operative Societies and Warehouses for Pepper.

212 This scheme can be implemented only after finding provision by reappropriation from other marketing schemes of less importance and when the need for it is actually felt in the wake of the primary marketing societies proposed to be organised. No financial target is fixed for the present

III.—Co-operative Farming.

213. The State has not marched abreast of the times in consolidating fragmented holdings and in the application of modern mechanised farming operations, with technical and scientific skill. The objective of the scheme is to transform the existing features of farming enterprises in the State and to facilitate the application of mechanical and improved methods of cultivation obtaining in other States.

16. Co-operative Farming Societies.

214. Twenty eight Co-operative FarmingSocieties will be organised during 1956-61 in the State. A limited area ofland will be required to form a Co-operative Farming Society Besides giving share contribution and cost on account of staff Government will advance loans and subsidy for the purchase of agricultural machinery, manure, improved seeds etc. The cost of the scheme during this Plan period will be Rs. 1 028 lakhs.

215 *Share Capital* —Government will contribute towards the share capital of the 28 Farming Co-operative Societies at the rate of Rs. 2,500 per society. A provision of Rs 0 70 lakh has been made for this in the Plan.

216. *Loans and Grants* —(i) Each Farming Society will be given a loan of about Rs 4,000 from Government for purchasing agriculture machinery and implements. The financial target fixed for this is Rs 1 35 lakhs

(ii) A sum of Rs 1,000 is also proposed to be given to each society for meeting the incidental overhead charges as also for the purchase of implements etc Rs. 0 28 lakh have been provided in the Plan for giving these grants.

17. Colonisation Scheme.

217 It is proposed to establish a collective Farming Society on co-operative basis at Nediyiruppu in Ernad taluk It envisages the colonisation of 559 acres of land to be parcelled out to 100 Harijan Colonists at the rate of 4 acres (3 acres dry and 1 acre wet) for each colonists, the remaining area to be utilised for common amenities such as irrigation, sinking wells, construction of huts for the colonists etc The society will also be given the free service of a Senior Inspector to work as its Secretary, a peon and two agricultural maistries The financial target fixed for this is Rs. 0 045 lakh

218. *Colonisation loan* —A loan of Rs. 0·175 lakh will be given to the proposed collective Farming Society at Nediyirippu for the purchase of agricultural implements and bulls

219 *Colonisation Grant.*—The Society will also be given a non-recurring grant amounting to Rs. 0·956 lakh towards meeting reclamation charges, irrigation expenses, digging wells, providing huts for the colonists, and quarters for the staff and for the supply of seeds and manure as well as provision for share capital payable by members.

18. Establishment of Regulated Markets.

220 The establishment of regulated markets is essential to enable the producer to get a fair price for his produce and to enable the buyer to get satisfactory quality. Practically all important States in India have an Agricultural Produce Market Act under which Regulated Markets are established for important crops in important producing and marketing centres.

221. The Districts of Cannanore, Kozhikode, and Palghat which originally formed part of Madras State have regulated Markets established under the Madras Commercial Crops Markets Act, 1933 It is proposed to introduce legislation, to establish regulated markets in the Travancore-Cochin area also.

222. It is proposed to establish Regulated Markets for Copra and Arecanut to start with. Other agricultural products like Cardamom, Cashew, etc., will be taken up subsequently. The financial target of the scheme is Rs. 5 13 lakhs.

(iv) CO-OPERATIVE TRAINING, EDUCATION AND PROPAGANDA.

223. One of the main causes for the weakness of the co-operative movement in the State may be attributed to the absence of trained personnel to run the societies. There is also the need to organise training for members and office bearers of Co-operative Institutions and to carry on educative propaganda for these as well as the whole body of honorary co-operative workers and the public generally

21. Subordinate personnel training.

224. Long term course to Secretaries and Managerial staff will be conducted at the subordinate personnel training centres at Trivandrum and Kozhikode By the end of the Plan period not less than 1,200 persons will be got trained

225. *Higher and Intermediate personnel training.* The Higher and Intermediate category of personnel will be got trained with the important aspects of co-operative development at the Regional Co-operative Training Centres run by the Reserve Bank of India. In addition to general training, some of the officers will be given specialised training in Marketing, Land Mortgage Banking, Warehousing etc. Not less than 100 officers will be trained during 1956-61

226. For the above two schemes a sum of Rs. 5·175 lakhs has been provided in the Plan.

22. Education of non-officials.

227. A scheme for organisation of co-operative education of non-official personnel of the movement will also be taken up The principal objective of the scheme is to educate the honorary office-bearers of the primary societies, members of the Managing Committees, and members of the societies About 17,000 non-officials will be educated during the Plan period. The Plan provision for the scheme is Rs 3·922 lakhs.

23. Propaganda

228. Propaganda on the Plan schemes under co-operation is an essential pre-requisite to organise and develop co-operative structure. The department will carry out propaganda work. An amount of Rs. 0·20 lakh has been provided for this scheme.

(v) CO-OPERATIVE ADMINISTRATION.

229. (a) *Separation of Audit and Administration.* To make audit more thorough and efficient a separate cadre of auditors (100 in number) will be appointed under the control of Zonal Deputy Registrars

(b) *Staff of the Department* The staff position in the department will be suitably strengthened according to necessity

230 A provision of Rs 4 75 lakhs has been made in the Plan for these two (*a* & *b*) schemes under Co-operative Administration.

(vi) CO-OPERATIVE DEVELOPMENT FUND

231 The State will create a Co-operative Development Fund. This fund will be utilised for enabling the State Government to take term loans for subscribing to the share capital of Co operative Societies and for giving non-recurring and recurring subsidies Rs 6 00 lakhs will be contributed to the fund during the Plan period.

(vii) RELIEF AND GUARANTEE FUND.

232 The State will constitute a Relief and Guarantee Fund as recommended by the Rural Credit Survey Committee The fund is to be created in order to give grants as a relief to the Co-operative Credit Institutions for the purposes of writing off irrecoverable arrears which have arisen from causes beyond the control of these institutions The contribution for the Plan period is Rs 6 00 lakhs

(viii) WAREHOUSING

233. The State will establish a State Warehousing Company. The main functions of the Warehousing Company are: the acquisition and building of godowns running of licensed warehouses, doing distribution work, and subscribing to the share capital of societies concerned. The Warehousing Company will issue warehouse receipts which will form a convenient form of currency for the producers A sum of Rs. 16 70 lakhs has been provided for the scheme.

(ix) UNFORSEEN CHARGES

234 A supplementary provision of Rs 1·61 lakhs has been set apart under co-operation for meeting unforeseen charges

(x) CO-OPERATIVE—(PILOT SCHEME)

235 On the basis of the recommendations of the Rural Credit Survey Committee, a pilot scheme of integrated rural credit and marketing was sanctioned by the Government of Madras for implementation in selected areas in selected Districts as a prelude to the main scheme under the Second Five Year Plan schemes. The scheme was first implemented in six Districts including the Malabar District—In the Malabar District two

Taluks viz., the Walluvanad and Palghat were taken for intensive development in the first instance. The main features of the scheme are given below —

1. Credit.

236. (a) Under the Scheme six Large Size Societies were programmed for organisation either by the formation of new Societies or by the re-organisation of existing societies The Centres selected for the organisation of Large sized Societies were: Alathur, Kothakurussi, Peruvemba, Melattur, Polpully; and Pattambi The Pattambi Rural Bank which was proposed for conversion into a Large Size Society, subsequently declined to work under the scheme and hence actually the other 5 Societies only were organised under the Scheme. These Societies were to be given State contribution in their share capital up to a maximum of Rs 10,000 and also to be provided with subsidy not exceeding Rs. 100 per mensem to meet the cost of managerial staff

237 (b) To intensify the supervision of the credit institutions and for effecting the linking of credit with marketing, the Malabar District Co-operative Central Bank appointed eight additional Supervisors and Government sanctioned subsidy to the Bank to meet the cost of these additional Supervisors at a rate not exceeding Rs 100 per mensem per Supervisor

238. (c) One primary Land Mortgage Bank viz, the Kozhikode Primary Land Mortgage Bank was selected for intensive development In order to expand the loan transactions of the Bank and to exercise effective supervision, Government sanctioned subsidy at a rate not exceeding Rs 125 per mensem to meet the cost of appointment of a Supervisor by the Bank.

2. Marketing.

239. Two Marketing Societies were selected for intensive development under the Scheme Viz, the Palghat Co-operative Marketing Society and the Mannarghat Co-operative Marketing Society The Societies were to be provided with State contribution in their Share Capital not exceeding Rs. 10,000 each The Palghat Co-operative Marketing Society was provided with the free services of a Co-operative Sub-Registrar and the Mannarghat Co-operative Marketing Society with the free services of a senior Inspector of Co-operative Societies to work as Secretaries of the two Institutions respectively.

3. Construction of Godowns.

240. One Large Sized Society, one Multipurpose Co-operative Society and one Marketing Society were selected for construction of a godown each under the Scheme The Societies selected were the following: —

1. Alathur Agricultural Bank,
2. Ambalappara Multipurpose Co-operative Society, and
3. Palghat Co-operative Marketing Society.

But the godown programme was subsequently deferred by the Kerala Government on the reorganisation of States as there was no provision for the expenditure in the budget for the last five months of the year 1956-57.

4. Staff.

241. For the implementation of the Scheme in each District, the Government sanctioned the required staff consisting of a Deputy Registrar, one Senior Inspector, one Lower Division Clerk, one Steno-typist and two peons

242. With the implementation of the Second Five Year Plan Schemes, the pilot scheme was merged with the main scheme with effect from 1-4-1956 and is being continued on the pattern of the main scheme approved by the Government of India The provision of Rs. 0.54 lakh mentioned in the Plan represents the expenditure in this scheme till it was merged with the Plan Schemes.

8. AGRICULTURAL MISCELLANEOUS.

(i) AGRICULTURAL STATISTICS

1. Estimation of the area under Minor Crops

243. At a conference held in Delhi in 1954 it was recommended that estimates of production in respect of commercially important, though minor, crops such as cashew nuts, cardamom, cloves, niger seed, tamarind and bye-products such as bran, husk, straw, etc. should be collected. Reliable estimates of the area under major crops alone were framed till that time The minor crops could not be brought within the purview of the sample surveys due to the limited strength of the field staff under the Statistics Department. As reliable estimates of minor crops are to be made, the sampling fraction of the land utilisation survey has to be increased to five per cent from the present one per cent. The Plan provision for the scheme is Rs 1 35 lakhs

2. Survey of cultivable waste lands.

244. In this State where the rate of growth of population is very high and the available agricultural area is very small any improvement in the direction of increasing agricultural production can be brought about only by.

(i) more intensive cultivation , and

(ii) Bringing all cultivable waste lands under cultivation.

A rough estimate of cultivable waste land is 2·5 lakhs acres It is proposed to conduct a ten per cent sample survey of the plots to study the extent of cultivable waste lands. The estimated cost is Rs 2·19 lakhs which has been provided for in the Plan.

3. Analysis of data from Scheme (1) & (2).

245. A provision of Rs 1 25 lakhs is included for the analysis of data available from schemes 1 and 2 and other incidental expenses.

4 Diagnostic studies & Supervision (District Statistical Offices).

246. The object of this scheme is to appoint District Statistical Officers with a view to making the supervision of the work of the field staff more effective and to undertake diagnostic studies for the reconciliation of figures collected by different agencies with the figures collected by the Department Under this scheme, five District Statistical Officers in the Travancore-Cochin area and three District Statistical Officers in the Malabar area have been appointed Each Officer is to be given a small clerical staff to assist him in office correspondence The estimated cost of the scheme is Rs. 3'3 lakhs

5. Agricultural Census for Malabar.

247. The Department of Statistics has been conducting two rounds of land utilisation surveys every year from 1949 in the former Travancore-Cochin State It has been possible to frame normals of acreage of principal crops for Travancore-Cochin area on the basis of the results of those surveys

248. As far as the Malabar area is concerned there has been no such surveys and the estimates of area under crops are being framed on the basis of reports from Village Officers These reports are not based on any objective enumeration and hence cannot be expected to possess a satisfactory degree of reliability It is, therefore, necessary to have an agricultural census on a sample basis conducted in the Malabar and Kasargode areas so that reliable normals can be fixed on the basis of this census. The scheme will be completed within a year during the Second Five Year Plan period A provision of Rs. 0'90 lakh has been included in the Plan for this scheme.

(ii) COLONISATION

i HIGH RANGE COLONISATION SCHEME.

(KOTTAYAM DISTRICT.)

249. The scheme envisages the settlement of 8000 families in an area of 40,000 acres at a total outlay of Rs 233 5 lakhs. The scheme was approved by the Government of India and they have agreed to give a loan assistance to the extent of Rs. 214 lakhs subject to marginal adjustment on the basis of actual expenditure.

250 Each family will be allotted 5 acres of land and given the following further assistance :—

1 House loan to the extent of Rs. 900.
2 Loan to the extent of Rs 100 for purchase of agricultural implements
3 Loan for cultivation purposes at the rate of Rs. 750 per block.
4. Livestock loan at the rate of Rs. 250.

During the initial period individual assignment of lands will be made. Later on, however, co-operative farming would be encouraged after a sense of co-operation has been developed in the colonists through the operation of co-operative stores and such other co-operative organisations

251 The colonists will be selected from among landless agricultural labourers who are prepared to become permanent settlers Land will be given to them on lease without limit of time A pattom (rent) equivalent to the Basic tax will be levied The right of the lessee is to be heritable but inalienable, the lease being subject to cancellation in the event of alienation or desertion. A sum of Rs 25 51 lakhs has been provided for this scheme

2 Wynad Colonisation Scheme.

252 The Wynad Colonisation scheme was started to relieve congestion, over-population and consequent poverty in Malabar by settling a large number of ex-servicemen, aboriginals, and landless civilians and helping them to develop the large undeveloped tracts of Wynad The colony is situated in the Kozhikode District, with its headquarters at Ambalavayal It extends over an area of 33800 acres Besides the above area, an extent of 5 sq miles of Government land in Chingeri village has been annexed to the Colony to settle local residents and aboriginals found surplus in the main colony Colonists will be given financial assistance for carrying on agriculture, reclamation of land, construction of house, etc, and the Government will undertake the development of industries, communications and other social welfare activities So far, 1917 ex-servicemen 799 local residents, 209 aboriginals, 6 landless civilians, 5 ex-tappers, 3 Ex-I N A personnel and 1 political sufferer have been settled in the colony An amount of R 15 00 lakhs has been provided for the scheme in the Plan

3 Attapady Land Colonisation Scheme

253 The Attapady valley is situated in the Mannarghat Firka in Palghat District The extent of the valley excluding reserve forests, private forests, and lands unfit for cultivation, is 280 sq miles The area deserves development on all spheres of social life The object of the scheme is to accelerate the development of the valley by providing adequate facilities like irrigation, roads, etc, in the area and to improve the social educational and economic conditions of the aboriginals who form the bulk of the population in the valley and settling landless aboriginals in the area. During the Plan period an amount of Rs 13 50 lakhs has been provided for the scheme.

4. Co-operative Colonisation Scheme.

254. The object of the scheme is to provide cultivable lands to actual cultivators who have no lands of their own and to encourage co-operative farming in the State The minimum number of members required for a colony is fixed as twentyfive. The colony will be granted loans at 4% interest subject to a maximum of Rs 600 per acre of land allotted to the colony. This loan is to be repaid by the Colony with interest within ten years The colony will also be eligible for a grant during the first five years. An amount of Rs. 4.75 lakhs has been provided for the scheme.

B COMMUNITY PROJECTS & N. E. S. BLOCKS.

255. The whole State of Kerala has been delimited into 142 blocks with a view to cover the entire State with N. E. S. Blocks by the end of the 2nd Five Year Plan period. The proposal for the 1st Five Year Plan was that 25% of the entire country should be covered with N. E. S Blocks, 32 Blocks were actually started during that period.

256. The District-war distribution of Blocks during the 1st and 2nd Five Year Plan periods will be —

District	1951-56	1956-61	Total
Trivandrum	5	7	12
Quilon	7	25	32
Kottayam	3	16	19
Trichur	5	24	29
Palghat	6	9	15
Kozhikode		23	23
Cannanore	6	6	12
Total	32	110	142

257. Under the programme for Community Development & N. E. S. for the 2nd Five Year Plan period, 40% of the N. E. S. Blocks will be converted into Community Development Blocks. The year wise phasing of the Blocks of each type for the State during the period 1956-61 is in accordance with the directions of the Ministry of Community Developments, shown below —

Year.	No. of N. E. S. Blocks	No. of C. D. Blocks
1956-57	14	4
1957-58	20	6
1958-59	21	8
1959-60	26	8
1960-61	29	10
Total	110	36

258. The expenditure pattern for a three-year period in respect of a N. E. S. Block is Rs. 4.0 lakhs and of a Community Development Block is Rs. 12.0 lakhs. These amounts are to be utilised during the period for rural development activities which are categorised under —

1. Block Head-quarters—Personnel etc.
2. Animal Husbandry and Agricultural Extension
3. Irrigation.
4. Reclamation
5. Health and Rural Sanitation.
6. Education.
7. Social Education
8. Communications.
9. Rural Arts, Crafts and Industries ,
10. Housing for Project Staff and Rural Housing.

259 The corresponding provisions for the two types of Block of the 1st Five Year Plan series are Rs 4½ lakhs for a N E. S. and Rs 15·0 lakhs for a Community Development Block. The heads of development are the same as those referred to above.

260. The allotments consist of both loan and non-loan funds. In respect of the loan funds, the entire amount will be advanced by the Government of India to the State as loan every half year according to the requirements of the State The loan will be repaid with interest to be fixed by the Government of India from time to time, over a period of 10 years. The non-loan portion of the budget grant will be shared between the Government of India and the State Governments as follows. —

Non-recurring expenditure ..	75% Government of India 25% State Government
Recurring .	50% Government of India 50% State Government.

261. Accordingly the shares of the two Governments under the schemes will be: —

	Total provision	Loan	Non-loan	Share of	
				Govt. of India	State Govt.
	(Rs. in lakhs.)	(Rs. in lakhs)	(Rs. in lakhs)	(Rs. in lakhs)	(Rs in lakhs)
1 N. E S Block .	4 0	1·20	2·80	2 95 (including loan of Rs. 1 20)	1 05
1 C.D. Block	12·0	4·50	7·50	9 36 (including loan of Rs 4 50)	2 64

262. In respect of the Blocks that complete their scheduled period of operation, the personnel is to be retained on the N.E S Pattern since the Blocks will continue permanent The liability in respect of the personnel etc., for the staff is to be treated as committed expenditure and does not form part of the Development expenditure for purposes of arriving at the total plan cost. The expenditure on this account for a Block is estimated at Rs 33,000 per annum, and the Government of India have agreed to bear 50% of the cost; the remaining 50% being met by the State Government.

263. In the case of Community Development Blocks that complete the scheduled period of operation, a provision of Rs. 30,000 per annum per Block is made to assist in keeping up the tempo of work. This provision will continue to be made for three years. The provision is to be utilized under the two heads, viz.. Social Education—Rs. 5,000 and Local Works—Rs. 25,000. This is classified under Development expenditure and will be shared between the Government of India and the State on the basis of the ratio prescribed for sharing non-loan expenditure in the Block.

264. In addition to the provision of Rs. 4 lakhs for a N. E. S. Block which is the Development expenditure for purposes of plan, a sum of Rs. 3·0 lakhs is also provided as short-term loans to agriculturists. This amount is to be provided through the Reserve Bank of India, Co-operative Societies and State Government and does not include in the Block's development Budget.

265 The Ministry of Community Development have made an allowance of 7½% for probable short-fall in expenditure and/or an efficiency cut on the total estimate. This has been accepted by the Government.

266 Based on the above, the plan cost for 1956-61 for Community Development Blocks and N. E. S. Blocks will come to Rs 547 84 lakhs.

267. A Statement showing the total physical target during the Second Five Year Plan Period for N. E. S. and C. D. Blocks is given below :—

Statement showing the Physical Targets of 36 Intensive Blocks and 110 National Extension Service Blocks during the Second Five Year Plan

	Details.	Intensive Blocks.	N. E S. Blocks.
	Agriculture and Animal Husbandry.		
1.	Compost pits ..	1,10,000 Nos.	1,50,000 Nos
2.	Fertilizers for distribution..	2,200 Tons	7,500 Tons
3.	Seeds do. .	80,000 paras	15,000 Paras
4.	Implements do. ..	4,400 Nos.	7,500 Nos
5.	Demonstrations do. ..	16,500 Nos	22,500 Nos.
6	Area brought under fruits .	4,400 acres	7,500 acres.
7.	do. Vegetation .	2,200 acres	1,875 acres.
8.	Breeding Centres (Kee Village Centres) ..	22 Nos.	..
9	Bulls castration „ ..	11,000 Nos.	7,500 Nos.
10.	Pedigree Bulls „ ..	100 Nos.	150 Nos.
11.	Table Eggs not fit for hatching ..	1,10,000 Nos.	2,25,000 Nos.
12.	Birds (inoculated and vaccinated) ..	2,20,000 Nos	3,75,000 Nos.
13	Cattle treated ..	44,000 Nos.	75,000 Nos.

STATEMENT—*contd.*

Details.	Intensive Blocks.	N. E. S. Blocks.
14 Fisheries and Fingerlings supplied	1,10,000 Nos.	7,500 Nos.
15 Insecticides	8,800 Cwts	7,500 Cwts
16 Japanese Cultivation	6, 00 acres	15,000 acres
17. Young Farmers' Clubs etc	1,100 Nos.	3,750 Nos.
18 Cattle insemination—		
i. Natural	4,400 Nos	7,500 Nos.
ii Artificial	40,000 Nos	75,000 Nos.
19 Distribution of hatching eggs	1,76,000 Nos	2,25,000 Nos.
20. Distribution of Chicks	44,000 Nos	75,000 Nos.
21 Rural Demonstration Centres	330 Nos.	1,125 Nos.
22. Loans for Agriculture	Rs 8,80,000	..
Reclamation		
23. Loans	Rs 5,50,000	.
Irrigation.		
Additional area brought under irrigation	2,200 acres	750 acres
Repairs to Irrigation tanks	1,100 Nos.	3,750 Nos.
Pumping sets etc.	550 Nos	750 Nos
Health and Rural Sanitation		
Soakage pits construction	2,200 Nos.	375 Nos.
Rural Latrines	11,000 Nos.	2,250 Nos.
Wells construction	440 Nos.	750 Nos
Wells renovation	660 Nos.	1,500 Nos.

268 There is a proposal now under the consideration of the Government of India to re-phase the allotment of Blocks during the Second Five Year Plan period, and to remove the difference between the N E S and Community Development stage This will result in the postponement of the complete coverage of the country with Blocks till 1963

CHAPTER IX

II. IRRIGATION & POWER

I. MAJOR IRRIGATION.

1. Neyyar First Stage (Spill-over).

1. This is a Major Irrigation Project in the Southernmost part of Trivandrum District in the valley of the river Neyyar. A reservoir formed by a masonry dam and canals on the left and right banks are the features of the scheme. The scheme is in two stages.

2. The first stage consists of the construction of the dam except fitting up spillway gates and the right bank canal The dam site is at Chempilamood two miles from the village of Kallikad and is 19 miles from Trivandrum City. The height of the dam above the river is 124 ft and that from the deepest foundation is 154 ft. The capacity of the reservoir is 3750 M. Cft.

3. The total length of the right bank main canal is 21½ miles and that of its branch canals is 12 miles. This will benefit an area of 15,000 acres The cost of the first stage is Rs. 146 lakhs The scheme was started in January 1952 An expenditure of Rs 96 19 lakhs was incurred during the 1st Five Year Plan on the project. By the end of the 1st Five Year Plan works on the head works were almost complete and the works on the canals were in progress A provision of Rs. 47 lakhs is made for the scheme in the Second Five Year Plan The first stage of the Project will be completed during the 2nd Five Year Plan.

2. Chalakudi Irrigation Project—First Stage (Spill-over.)

4 The Chalakudi Irrigation Project in the Trichur District is one of the schemes included in the First Five Year Plan. The Project consists of the construction of a Weir at Thumburmuzhi, 11 miles east of Chalakudi and the construction of main land branch canals on the right and left banks of the river The Project is divided into two stages, the first stage supplying water for irrigating about 28,400 acres of lands east of the Cochin-Shoranur Railway line The canal system in the first stage consists of 35 miles of main canals and 101 miles of branch canals. The cost of the first stage is Rs. 128·25 lakhs.

5. By the end of the 1st Five Year Plan, the diversion weir, 35 miles of main channel and 93 miles of branch channels were completed and an area of 16,500 acres was brought under irrigation In the 2nd Five Year Plan the balance of 8 miles of branch channels and other minor improvements and finishing works are provided for. The provision in the Second Five Year Plan for this is Rs. 13 42 lakhs.

3. Peechi Project (Spill-over).

6. This is a Major Irrigation Project in the Trichur District in the valley of Karuvannur river. A reservoir, formed by the construction of a masonry dam in the Manali tributary and canals on both banks of the river are the main features of the Project The dam site is at Peechi about 15 miles from Trichur town. The scheme was included in the 1st Five Year Plan and it has been spilt-over into the 2nd Five Year Plan.

7. The length of the dam is 750 ft. and its height above river bed is 120 ft. The capacity of the reservoir is 3900 M. Cft.

8. The right bank canal consists of 23 miles of main canals and 47 miles of branch canals The left bank canal consists of 28 miles of main canals and branch canals The canal system has an ayacut of 46,000 acres

9. The cost of the project is Rs 235 lakhs An expenditure of Rs. 63 25 lakhs was incurred before the 1st Five Year Plan and an expenditure of Rs. 128 14 lakhs was incurred during the 1st Five Year Plan By the end of the 1st Plan the works on the dam were complete and the works on all main canals were nearly complete An area of 23,000 acres was brought under irrigation by the end of the 1st Plan. A provision of Rs. 24 82 lakhs is made for the Project in the 2nd Five Year Plan The Project has been completed except for some minor items of works

4. Vazhani Scheme (Spill-over).

10. This irrigation Project was taken up under the 1st Five Year Plan. The Head-works consist of an earthen dam formed across the Wadakkancherry river with the necessary outlet sluices at a place called Vazhani, 7 miles east of Wadakkanchery Railway Station in Trichur District The canal on the left bank will irrigate the entire ayacut of 12800 acres The cost of the scheme is Rs. 107 57 lakhs The 2nd Plan provision for this is Rs 26 lakhs An expenditure of Rs 5 02 lakhs was incurred before the 1st Plan period and an expenditure of Rs 53·96 lakhs was incurred during the 1st Plan period At the end of the 1st Plan the works on the dam were nearing completion and the works on the canals were in good progress

11. The dam works are nearly complete except for the erection of shutters etc. The canal works are also nearing completion

12. The capacity of the reservoir is 690 M Cft The Main canal is 23 miles, 7 furlongs long and its branch canal 14 miles

5. Mangalam Project (Spill-over).

13. The Mangalam Project consists of the construction of a dam across the Mangalam river near Kizhakkancherry village in Palghat District. The dam is a composite structure with the masonry dam portion on the river bed level and two saddle dams of earth on the left and right sides.

14. Two canals are on each side of the river take off from a common sluice from the dam, to irrigate a total ayacut of 6000 acres. The total length of main distributaries is about 23 miles. The scheme was started in the 1st Five Year Plan and is being continued in the 2nd Five Year Plan as a Spill-over scheme The total cost of the scheme is Rs 97 51 lakhs An expenditure of Rs. 54 97 lakhs was incurred on this project during the 1st Five Year Plan. By the end of the 1st Five Year Plan works on the Dam and L. B. C were completed and R B C works were in progress. The provision in the 2nd Five Year Plan is Rs 46 40 lakhs. The scheme is expected to be completed in all respects during the 2nd Five Year Plan period. With the completion of this project there will be an additional production of 4,000 tons of rice in the Palghat District. The Dam also stores water for the Cheerakuzhi scheme to the extent of 300 M. Cft.

6. Walayar Project (Spill-over)

15. This project consists of a reservoir formed by a Central masonry dam with connecting earthen dams on either side across Walayar river in Palghat District The dam site is situated near the boundary of Madras and Kerala and is 14 miles from Palghat along the Palghat-Coimbatore road There are two sluices in the masonry dam, one for letting out water into the river and the other intended to take water to the right side when necessity arises The main canal takes off from the river above an existing anicut called Nellisely Anicut lower down the dam site, to irrigate a total area of about 8,000 acres.

16 This was started during the 1st Five Year Plan and is being continued in the 2nd Five Year Plan as a spill-over scheme. An expenditure of Rs. 87·46 lakhs was incurred on this project during the 1st Five Year Plan By the end of the 1st Five Year Plan works on the dam and canals were nearly completed Now all the works in the dam and the canals are nearing completion. The estimated cost of the scheme is Rs 116 66 lakhs and the provision under the 2nd Five Year Plan is Rs. 20 00 lakhs

7 Malampuzha Project (Spill-over)

17. This was taken up as a major Irrigation scheme by the Madras Government during the 1st Five Year Plan It could not be completed by the end of the first plan Now it is taken up as a Spill-over scheme. The project consists of building a dam, partly of masonry and partly of earth for a length of 6066 ft across the Malampuzha River which is a tributory of the Bharathapuzha river. The dam site is situated 4 miles east of Olavakot Railway Station in Palghat District. Malampuzha is a perennial stream and has its source in the Western Ghats

18. The masonry dam is of the straight gravity type and the earthen dam of the zonal type The scheme when completed, will irrigate an area of 47,600 acres. The distribution system

mainly consists of two main channels, the left bank and the right bank The total length of these two main channels is about 37 miles. Provision has also been made for generation of electricity in future.

19 The scheme is estimated to cost about 528 lakhs. An expenditure of Rs. 79 37 lakhs before the 1st Five Year Plan and an expenditure of Rs 398 89 lakhs during the 1st Plan were incurred on this Project. By the end of the 1st Plan period works on the dam and L B C were completed An area of 35,000 acres was brought under Irrigation by the end of the 1st Plan There is a provision of Rs 80 03 lakhs for this scheme in the 2nd Five Year Plan, mainly for right bank canal The Project has been in operation from 1955-56.

8 Kuttanad Development Scheme.

20 Kuttanad comprises an area of 340 Sq miles most of which is water-logged and has 189 2 Sq miles of paddy lands, 31 Sq. miles of lake area and about 117 Sq miles of garden lands. Damages to cultivations occur every year due to the floods and tidal inflow Communication facilities are also poor in this area. By the completion of the Kuttanad Development Scheme which consists of two parts, viz , (i) the construction of a Spillway at Thottapally and (ii) a Salt Water Barrier, these damages are expected to be eliminated to a great extent

(i) *Spillway at Thottapally (Spill-over)*.—The cost of the spillway at Thottapally is Rs 57 65 lakhs The scheme was started during the 1st Five Year Plan and by the end of the first Plan it was completed except for the leading canal The remaining work of the spillway was taken up as spill-over in 2nd Five Year Plan There is a provision of Rs. 8 0 lakhs for this scheme in the 2nd Plan

(2) *Salt Water Barrier at Thanneermukkom* The second part of the Kuttanad Development scheme viz the construction of a salt-water Barrier at Thanneermukkom could not be taken up during the first Plan period because of the objections raised to the scheme by the Cochin Port authorities Model studies were conducted at the Research stations at Poona with a view to find out the possible effects of the scheme on the Cochin Harbour. The model studies have proved that the construction of the barrier with some changes in the original design would not have any disastrous consequences on the Cochin Harbour. The scheme has been redesigned accordingly

21 This project envisages the construction of a regulator across a narrow section of the Vembanad lake to regulate the ingress of salt-water in order to protect more than a lakh of acres of single crop paddy lands that lie slightly below the sea level and also to enable a second crop cultivation on them. The estimated cost of the scheme is Rs 150·00 lakhs and the provision for this in the Second Five Year Plan is Rs. 76.00 lakhs.

22. The idea is to construct a regulator of 92 spans each 40' clear with double shutters to a height of 18' Twin locks at the Thanneermukkom end and a single lock of the Vetchoor end are proposed to facilitate navigation. A 22 ft. wide bridge across the piers supporting the regulator gates facilitates road transport across the lake and brings the two shores together.

23. The scheme will enable to safe-guard the puncha crop from the ravages of flood, the spring tides and saline intrusion and also enable to second crop cultivation. The scheme will also improve the domestic water supply to the whole area of Kuttanad In addition to these it will enable reclamation of a considerable shallow portion of the lake for paddy cultivation at a future date, provide continuous employment for a large number of unskilled workers and will provide an important road link between the two shores of the Vembanad lake and the head-quarters of Alleppey and Kottayam Districts. The scheme will benefit 1,21,000 acres of land and will result in increased production of 41,000 tons of rice.

9 Neyyar Scheme (Second stage)

24 The first stage of this scheme was included in the First Five Year Plan. It consisted of the construction of a dam at Chembilamoodu about 19 miles south-east of Trivandrum on the Neyyar river and the construction of 21½ miles of canals on the right bank to serve 15000 acres in Neyyattinkara Taluk. The cost is Rs 146 lakhs The second stage consists of the construction of a main left bank channel for 24 miles and branch channels f r 75 miles to irrigate 9,900 acres in the Neyyattinkara Taluk of Trivandrum District and 9200 acres in Vilavancode Taluk of Kaniyakumari District of Madras State at a cost of Rs 106 lakhs The total cost of the scheme is thus Rs 252 lakhs and it benefits a total extent of 24900 acres of lands in Kerala and 9,200 acres in Madras The cost per acre works out to Rs 728 Betterment levy recoveries will amount to Rs 176 44 lakhs for the entire scheme Annual water cess realisable is Rs 2 lakhs A provision of Rs 71·25 lakhs is provided for this scheme in the Plan.

10. Chalakudi Irrigation Scheme (Second Stage).

25 The first stage of the scheme, which contemplated the construction of a weir, 35 miles of main channel and 101 miles of branch channels, was practically completed in the first Plan. The second stage aims at the construction of the remaining length of 17 miles of main channels and 61 miles of branch channels to irrigate 20,250 acres of land, besides 28,400 acres already covered by the first stage. The cost of the first stage is Rs. 128 25 lakhs and of the second stage is Rs. 57 lakhs. This works out to Rs 380 per acre Out of this Rs. 134 lakhs is expected to be recovered as betterment levy In addi ion annual water cess collections will amount to Rs. 3 24 lakhs.

11 Bhoothathankettu (Periyar valley) Scheme.

26. The proposal is to construct a diversion weir in the Periyar at Bhoothathankettu and to lead the water to the left bank through main and branch channels. The cost of the scheme was estimated at Rs 348 lakhs It is considered that it would not be possible to spend more than 200.80 lakhs on this Project during the present Plan period A provision of Rs. 200 80 lakhs is therefore provided in the Plan. The work is programmed for completion in the Third Plan. When completed the scheme will irrigate 63,300 acres in Muvattupuzha and Kunnathunad taluks The capital cost works out to Rs 500 per acre. Out of this, Rs. 271 9 lakhs will be recovered as betterment levy An amount of Rs. 2 38 lakhs per year can be realised as water cess

12 Meenkarai Scheme

27. The scheme is to form a reservoir across Meenkarai river in Palghat Taluk opposite to Muvulagapudur at mile 21/6 on Pollachi-Kollengode road with a capacity of 315 million cubic feet This dam will be 3160 ft. long consisting of masonry and earth The right bank channel will be 5½ miles long the left bank 3¾ miles The scheme when completed will irrigate 4100 acres The total cost of the scheme is Rs 56 34 lakhs which works out to Rs 1,374 per acre.

13. Cheerakuzhy Scheme.

28. The object of the scheme is to utilise part of the storage of the Mangalam scheme for irrigating nearly 4000 acres of wet lands in the Talappilly Taluk by constructing a diversion wier down stream of the Mangalam dam The cost of the scheme provided for in the Plan is Rs. 31 92 lakhs. The capital cost works out to Rs 798 per acre Rs 12 62 lakhs out of this is expected to be recovered as betterment levy Rupees 0·2 lakh will be realised annually as water cess.

14. Pothundy Irrigation Project.

29 The project envisages the construction of (1) an earthen dam across the river called 'Ayalur Puzha' formed by the confluence of two streams Meenachadipuzha and Padipuzha immediately below confluence, (2) a surplus weir at the right bank of the river, (3) an outlet sluice on the left bank of the river and (4) 23¼ miles of canals for irrigating 9128 acres of lands in Nemmara in the Chittur Taluk in Palghat District.

30. The site of the earthen dam is 34 miles north-east of Trichur town and about 20 miles south of Palghat town in Palghat District The length of the dam is 7035 ft.; the maximum height 84' and the water spread area at +328.0 —756 acres (1.84 sq. miles) and catchment area 12.5 sq miles The storage capacity above sill level of head sluice is 759.49 M. C.Ft. The length of the main canal is 1 mile 6 furlongs, main branch canals 16 miles 1 furlong and sub branches 5 miles 5 furlongs. The

project will convert 1788 acres of existing single crop lands, into double crop lands, irrigate 4625 acres of double crop lands, and 239 acres of garden lands and convert 2476 acres of dry lands into double crop lands The additional production of rice after completion of the project will be about 3400 tons.

31 The estimated cost of the project is Rs 88 lakhs (approximate) A provision of Rs. 70 lakhs is included in the Second Five Year Plan

15 Kattampally Project.

32. This is a comprehensive multipurpose scheme of development of Kattampally swamp in Cannanore District, touching on irrigation, navigation, flood control, salt water exclusion, land reclamation, communication etc The first stage consists of (1) construction of a salt water regulator at Kattampally 6 miles north of Cannanore Town, (2) raising the road in continuation of this for a length of about 1½ miles to above flood level; (3) construction of a navigation lock and (4) installation of pumps for dewatering.

33 These works will give 4000 acres of wet lands immediate relief from floods, effect salt water exclusion, stabilise the cultivation over the whole area and improve the facilities for communication by road and water In the subsequent stages of development the Kattampally river will form part of the proposed Valapattanam river project and more than 1000 acres of low lying lands will be reclaimed By securing additional irrigation, the entire area will be enabled to raise a second crop.

34 The first stage of the project is estimated to cost Rs 28·63 lakhs There is a provision of Rs. 25 lakhs in the Second Five Year Plan.

16. Investigation of new schemes

35 An amount of Rs 9 50 lakhs is provided in the Plan for investigation of new schemes

2. POWER

1. Pallivasal Hydro-Electric Scheme.

36 Under the First Five Year Plan provision was made for completing (a) the construction of a Dam at Madupatty 150 ft. high from the average river bed with a storage capacity of 1900 m c ft. across the Mudirapuzha river ; (b) Modification of the first three generating units installed in the station under the first stage for increasing the capacity of each unit from 4500 KW to 5000 KW and (c) the installation of one more set of 7500 KW at Pallivasal.

37. The work relating to the construction of the Madupatty Dam was taken up in 1946 at an estimated cost of Rs 220 lakhs. The work had progressed to a small extent by 1951 and the expenditure on this scheme prior to the commencement of the First Five Year Plan was Rs 70 lakhs The programme for completing the remaining works was included in the First Five Year Plan.

38. **During the First Five Year Plan almost all works connected** with the dam except some finishing works were completed. As programmed the additional generating capacity of 9000 KW was commissioned thus raising the total capacity of the Pallivasal station to 37500 KW The expenditure on this scheme during the First Plan Period was about Rs. 130 73 lakhs. Under the Second Five Year Plan a provision of Rs 4·8 lakhs has been made to complete the finishing works relating to the Dam.

39. All the works connected with the project have since been completed

2. Sengulam Hydro-Electric Scheme

40 This project is a tail water development of the existing Pallivasal Station and was taken up for execution in 1947. The installed capacity of the station is 48000 KW On this scheme also the works had progressed to some extent before the beginning of the First Five Year Plan and the expenditure on this project prior to the First Plan period was about Rs. 140 lakhs. The estimated cost of the scheme is Rs. 364 73 lakhs.

41 During the end of the First Five Year Plan, the works on the project had been completed in all respects except for some finishing works in the diversion weir The generating plant of capacity 48000 KW in the station was commissioned in 1954 and since then has been in commercial operation The total expenditure on the scheme during First Five Year Plan was Rs 257 28 lakhs.

42. Only finishing works remained to be completed and those were provided for in the second plan period at a cost of Rs 1 83 lakhs All finishing works have been completed during the first quarter of 1957-58.

3. Poringalkuthu.

43. This scheme contemplates the development of power from the Chalakudy river with the aid of a reservoir of 1200 m. c ft. storage capacity constructed in the Chalakudy river where it is joined by Anakayam Stream. The power house with an installed capacity of 24,000 KW is located down stream of the foot of the Poringalkuthu falls The estimated cost of the scheme is Rs 306·27 lakhs The scheme was taken up for execution in 1946 The expenditure prior to the commencement of the First Five Year Plan amounted to Rs 125 lakhs and the expenditure during the First Five Year Plan was Rs 175 23 lakhs. This project was originally programmed to be completed by the end of the First Five Year Plan But due to some delay in the supply of pen-stock and generating plant, the commissioning of the generating plant could be achieved only in the beginning of the Second Plan

44. All the three generating sets each of 8000 KW were commissioned during the first quarter of 57-58 This station is now in commercial operation and is supplying power to the Kerala grid The provision included in Second Five Year Plan for the project is Rs. 40 00 lakhs.

4. Peringalkuthu II Stage—Installation of a Fourth Generating Unit.

45. The scheme is for the installation of a fourth generating unit of 8000 KW in the Poringalkuthu power station. A provision of Rs 35·41 lakhs is included for the purpose in the Second Five Year Plan.

5. Neriamangalam Hydro-Electric Scheme

46. The Neriamangalam scheme contemplates the diversion of the Mudirapuzha river at Kallarkutty where the river Kallar joins the Mudirapuzha at about 3 miles down stream of the Vellathuval power house of the Sengulam Project and utilisation of the drop of 650 ft available for power development. The tail waters of the Sengulam Hydro Electric power station together with the run off from 191 Sq miles of catchment below Munnar are proposed to be utilised in the scheme.

47. At the site of the diversion weir which is at an elevation of 1393 ft it is expected to have an average minimum flow of 375 cusecs initially from the tail race of Sengulam and the run of the river in the rest of the catchment and ultimately 700 cusecs when the waters of the Panniar river are also regulated This figure can be reached only after all the other development schemes such as Panniar and Lakshmi are taken up. For the first stage development the discharge will be about 375 cusecs The F. R L. of the forebay at Kallarkutty will be 1470 ft. and the storage 100 m c. ft

48 The water diverted at Kallarkutty will be conveyed through a tunnel 11,500 ft long driven through rock. The area of cross section of the tunnel will be 120 Sq. ft to permit of the ultimate peak load demand of 1100 cusecs The tunnel ends in a surge shaft One low pressure pipe line of 11 ft. diameter will emerge out of the surge shaft for about 330 ft. long inside a pipe tunnel.

49. There will be 3 Nos of 63″ pipe lines each of 1422 ft in length with suitable valves to lead the waters to the Power House.

50. The Power house is to be located just below the Panamkutty junction, i. e, the confluence of Mudirapuzha with Periyar. The power house level will be near about 840 ft. and the tail race pond level 820 ft so that the gross head of the scheme will be 650 ft. (1470'—820').

51. For the first stage development the firm power will be about 16200 KW. Three generating sets each of 15000 KW are proposed to be installed initially keeping one set as stand by. The cost of the scheme is Rs 290·00 lakhs and the provision made in the Second Plan is Rs 274 00 lakhs.

6. Panniar Hydro-Electric Scheme

52 Panniar is one of the main tributaries of Mudirapuzha and drains about 115 sq miles of catchment before joining Mudirapuzha. There are two good dam sites where reservoirs can be

formed to regulate the flow of the river to give a continuous discharge of 300 cusecs throughout the year The water can be dropped after being led through a tunnel and pipe line through a height of 780 ft The power house is to be constructed on the left Bank of the Mudirapuzha almost opposite to the Sengulam Power House The power expected to be generated is 15000 KW continuous or 25000 KW at 60% load factor The regulated waters can again be used to generate more power in the Neriamangalam Scheme

53 *Dams* —As a result of detailed investigations conducted two dam sites are selected One near Ponmudi estate two miles upstream of Panniarkutty, i e, junction of Panniar with Mudirapuzha and the other about 18 miles upstream at Anaerankal in Panniar Tea Estate

54. *Catchment* —The catchment area above the Ponmudi dam site is 110 5 sq miles and that above Anaerankal dam site is 25 36 sq miles The catchment above Anaerankal is subjected to heavier rainfall during North-east monsoon while that above Ponmudi and below Anaerankal, i e, 87 sq miles is similar to Mudirapuzha catchment where most of the rainfall occurs during the South-west monsoon It is proposed to construct two dams, an earthen dam at Anaerankal to form a reservoir of 2000 m c. ft capacity and a masonry dam at Ponmudi to form a reservoir of 1220 m. c ft. Hydrological computations show that these two reservoirs will give a regulated flow of over 300 cusecs

55 *Tunnel and Penstock* —The water will be led through a tunnel 9600 ft long and sectional area of 72 sq ft to take a maximum 600 cusecs The penstock will consist of two pipe lines 58" dia 1913 ft long The total cost of the scheme comes to about Rs 295 lakhs The provision made in the Second Plan is Rs 280 25 lakhs The tail water is to be again used at Neriamangalam over a head of 650 ft.

56 *Power house* —The power house will be located on the left bank of the Mudirapuzha river opposite to the Sengulam Power House The power house building will be an R. C C structure to accommodate two generating units each of 15,000 KW capacity.

7 Sholayar Hydro-Electric Project

57. The proposal is to construct a 150 ft. high masonry dam in the Sholayar tributary of the Chalakudy river at a place about one mile from Ambalapara to give a storage reservoir of 4580 m c. ft. The water from this reservoir will be directed to a head-works consisting of 23 feet high weir 2½ miles lower down the river and thence to a short tunnel 1200 ft long driven across the Ambalapara ridge and dropped in Anakayom valley. The penstock line will be 3500 ft long and will consist of three pipe lines each 58" x 52" The generating station will have 3 generators, each 18000 KW with the necessary transformers and switch gear Power to the extent of 25000 KW at cent per cent load factor can be generated from this station.

58. The tail water from this scheme which will be about 380 cusecs flows directly into the Poringalkuthu Left Bank Scheme reservoir. This additional flow of water into the reservoir can be made use of to develop 15200 KW of additional power at Poringalkuthu left bank station.

59 The cost of the scheme is Rs. 391 lakhs of which a sum of Rs 262 02 lakhs is provided in the Plan. The balance of Rs. 128 98 lakhs will be required for anticipated deferred payments. This expenditure will have to be incurred only in the beginning of the Third Plan period.

60. The programme for the completion of these projects and the consequent growth of generating capacity is phased as follows:—

Year	Anticipated load KW.	Initial effective capacity	Name of the scheme commissioned in the year	Addition during the year	Effective capacity KW
1955-56	75,000				68,500
1956-57	95,000	68,500	Poringal I Stage	16,000	84,500
1957-58	1,29,000	84,500			84,500
1958-59	1,42,500	92,500	Neriamangalam & Poringalkuthu 4th set	50,000	1,34,500
1959-60	1,65,500	1,34,500			1,34,500
1960-61	2,10,000	1,34,500	Panniar & Sholayar	74,000	2,08,500

8. Pamba Hydro-Electric Project (I Stage)

61. The proposal is to construct a dam of height 221 ft. in Pambayar to form a reservoir of capacity 4500 m. c. ft. A tunnel 8070 ft long across the parting ridge between Pambayar and Kakkiyar will convey the water to a surge shaft and valve house and from there two pipe lines each 5270 ft. long will lead the water down to a power house situated on the bank of the Kakkiar. The average gross head available is 2220 ft and this will be made use of to produce 44400 KW at 100% load factor or 74000 KW at 60% load factor. Two machines each of 50000 KW capacity will be installed in the first stage.

62. The cost of the scheme is Rs. 965 lakhs and the provision made in the Second Plan is Rs. 220 lakhs. The scheme is to be completed in 1962-63

9. Investigation of River Valley Projects.

63. A provision of Rs. 21 75 lakhs is made in the Plan for undertaking investigation on new hydro-electric projects.

10 Transmission, Distribution and Rural Electrification.

64 In drawing up the proposals for the 2nd Five Year Plan for Kerala, the long term demand for power has been kept in view and a provision of Rs. 1,118 31 lakhs has been made for taking up new Power Projects and also for completing those taken up under the First Five Year Plan With the completion of the 2nd Five Year Plan it is expected that 1,37,000 K W. of additional generating capacity will be added to the system and that the ultimate power availability will be 2,08,500 K. W. as against the anticipated power requirements of 2,10,000 K W The Transmission, Distribution and Rural Electrification Schemes proposed in this Plan provide for further expansion of the existing transmission and distribution net works to convey to the ultimate load centres, this additional power, that would be made available by the completion of the Power Projects.

65. With the reorganisation of States it has become necessary to recast the original plan sanctioned for the residuary Travancore-Cochin State with a view to meet the power requirements of the Malabar area which lags considerably behind the residuary Travancore-Cochin State in the matter of power development There were considerable restrictions in this area in regard to allotment of power for industrial purposes. Though according to the arrangements originally agreed to with Madras for the supply of power to Malabar area the normal power requirements will continue to be met from the Madras grid at the rate of 10,000 K W. per year till '60—61 considerable difficulty is experienced in getting even this agreed quantum of power from Madras due to their power shortages. Under the circumstances it is considered necessary to make adequate provision in the Kerala Plan for meeting the entire power demand of Malabar area from the T-C grid and a provision of Rs. 216·8 lakhs has been made for Transmission Works to be taken up in Malabar. With a view to raise the level of development under Distribution and Rural Electrification in Malabar area and to bring it in level with the residuary T-C State a provision of Rs. 260·429 lakhs has been made in the Kerala Plan for the above works in Malabar area. A provision of Rs. 26 lakhs has also been made for nationalising existing Licensees in Malabar area. Thus out of the total plan provision of Rs. 2,345·48 lakhs for power developments in Kerala, Rs. 503 229 lakhs is for power developments in Malabar area.

(1) *Transmission.*

66. This scheme provides for the completion of the spill-over works from the 1st Five Year Plan, construction of 2888 circuit miles of 110 K V lines, Four 110 KV substations, 43 circuit miles

of 66 KV lines, Six 66 KV substations together with the installation of load despatch and carrier communication system, increasing capacity of Transformers in existing Stations, staff and training of staff etc. The details in regard to these works are given below: —

A. Spill-over Works.

Provision for completing:

1.	Poringalkuthu—Chalakudi 110 KV line	Rs. 79·39 lakhs
2.	Sengulam—Pallom—Kundara 110 KV line.	
3.	Pallom—Peermade 66 KV line.	
4.	33 KV line to Karunagapally and 33 KV substation at Karunagapally.	
5	66 KV substation at Alleppey, Punalur Peermade, Pallom, Vythila, Viyyur, Chalakudi and Thiruvella and 110 KV substation at Sengulam, Pallom and Kundara	

B 110 KV Lines and Substations.

a.	Double circuit 110 KV line from Chalakudy to Shoranur—38 miles .	34·20
b.	Do. from Shoranur to Kozhikode—55 miles ..	46·75
c.	Single circuit 110 KV line from Cannanore to Kasargode—52 miles ..	31·20
d	110 KV double circuit—Alwaye to Neriamangalam—45 miles ..	35·86
e.	110 KV double circuit Panniar tie line—4 miles ..	4·75
f.	110 KV single circuit line from Alwaye to Sholayar—50 miles ..	10·69
g.	Do. from Sholayar to Poringalkuthu—12 miles ..	10·64
h.	Double circuit 110 KV line from Chalakudy to Alwaye and Substation at Chalakudy—18 miles ..	21·37
i.	110 KV Double circuit line to FACT—2 miles and Substation ..	4·00
j.	110 KV Alwaye Substation .	32·30
k.	110 KV Substation at Kozhikode .	18·60
		250·36

C. 66 KV Lines and Substations.

a.	66 KV line (Single circuit) from Trichur to Shoranur—18 miles	.	7·20
b.	Do. Shoranur to Palghat—25 miles	..	10·00
c.	66 KV Sub station at Kozhikode	.	11·84
d.	Do Shoranur	.	15 00
e.	Do. Palghat	.	12·20
f.	Do Malapuram	..	9·30
g.	Do. Cannanore	..	15·20
h.	Do. Kasargode	..	5·31
			86 05

D	Load despatch and carrier Communications	..	14·25 lakhs
E	Increasing capacity of Transformers in existing Stations	..	19·00 „
F.	Staff and training of staff	..	5 70 „
G	Miscellaneous works	..	2 14 „
H	Compensation for nationalisation of licensees undertakings in Malabar	..	26 00 „
	Total	..	482 89 „

(2) Distribution and Rural Electrification

67. The provision for this Scheme in the Kerala Plan is Rs 722·53 lakhs. The following works have been proposed: —

A. Distribution Scheme

		Target	
		Physical	Financial
1. Connecting up new consumers	..	1,05,260 Nos.	157·89 lakhs
2. Installation of Street lights	..	50,595 „	50 60 „
3. Increasing capacity of Transformers, strengthening of feeders etc , in existing centres	..	..	83·10 „
B. Rural Electrification Scheme.			
1. Opening of new centres	..	1,344 „	403·20 „
2. Civil Works	..		27·74 „
			722·53

CHAPTER X.

III. INDUSTRY AND MINING.

MAJOR INDUSTRIES—PRIVATE SECTOR.

The target of Rs. 23 75 lakhs under the head was intended for 3 schemes in the old Travancore-Cochin Plan. Subsequently Government wanted to increase this; but the Planning Commission was not in favour as it was not in accordance with their general policy to approve direct investment by State Government in Private Industries. Their suggestion was that investment in private sector should be done through State Finance Corporation, or other institutional agencies already set up. Government feel that for the industrialisation of the State direct participation by Government would also be necessary and hence limited provision for the purpose is being made in the budget of each year outside the Plan. The schemes included in the Second Five Year Plan under private sector are:

1. Synthetic Corundum Factory.

2. A sum of Rs 4·75 lakhs has been made in the Kerala Plan for giving financial assistance to this industry But due to certain difficulties relating to the availability of foreign exchange etc., and also due to the fact that a similar concern has already been started in a sister State, the question whether this scheme should not be dropped and the funds available diverted to some other scheme is being actively considered.

2. Sand Lime Bricks.

3. Sand lime bricks would be more economic and more efficient than clay bricks. There should be no difficulty about the off-take of this production since it has already been demonstrated by certain British firms that sand lime bricks are structurally much stronger as a building material than clay bricks or quarried laterite bricks.

4. Among the advantages claimed for the sand lime bricks over clay bricks are:—

- i. They are perfectly shaped and uniform in size so that less mortar is required in their laying (one coat of plaster to sand lime brick wall is sufficient)
- ii. Owing to the colour and texture they are invaluable for use where maximum light reflection is required.
- iii. They can be used successfully as facing bricks.
- iv. They are more economic than ordinary clay bricks. The chief raw materials for the industry are sand and lime. Both these raw materials are easily available in and near the backwaters and coastal areas.

3-1305

5. The capital that is required for the new undertaking is estimated at Rs 20 lakhs Suitable assistance will be given by Government to the sponsor of the industry A provision of Rs. 4 75 lakhs has been made for the scheme in the Kerala Plan for financial assistance to any company organised for starting the industry. Messrs. Cheriyan & Co., Chingavanam, Kottayam, has sponsored a scheme for the manufacture of sand lime bricks and Government propose to assist this company, financially by participating in the share capital of the concern. The installed capacity of the proposed factory will be 12 million bricks a year.

3 **White cement scheme of Travancore Cements**

6 The scheme of Messrs. Travancore Cements Ltd is to instal a plant in their factory at Kottayam for the manufacture of white cement. The lime shell available in the Vembanad lake, the white clay available in the Kundara area and the white sand available in the Shertallai area are the main raw materials The capacity of the plant proposed to be put up is 15,000 tons a year

7. Government have advanced a loan of Rs 15 lakhs to the company in March 1957 The total profit expected is Rs 6 lakhs a year *i. e* a return of 24% on the capital of Rs 25 lakhs

MAJOR INDUSTRY—PUBLIC SECTOR

1 **Ceramic Factory—China Clay Scheme**

8. The Ceramic Factory, Kundara is a Government-owned concern, started in 1940. It produces crockery of all varieties, electrical, chemical and refractory porcelain and industrial refractories of all kinds

9 A scheme for increasing the productive capacity of this factory and for improving the quality of its products had been included in the First Five Year Plan This was a scheme for installing a Double Tunnel Kiln at a cost of nearly Rs 30 lakhs, of which Rs 8 lakhs were spent before the Plan period The construction of the main and subsidiary buildings was completed and the Kiln erected.

10 Government own mines for the production of China Clay needed by the Ceramic Factory and equipment worth Rs 2 2 lakhs for working these mines. The clay available in the State is of very high quality and is in great demand from all over India The mining of this commodity is not done as scientifically as it should be The proposal in the Second Five Year Plan is to put the mining of China Clay on a scientific basis by introducing the open cast system of mining. Under this scheme the overburden extending to a depth of 65 to 100 feet over the clay deposits will be removed by applying improved techniques which will facilitate the production of a larger quantity at a lesser cost The object is to produce 3,500 tons as against the present production of 2,500 tons It is expected that on account of economy in the cost of production the selling price of clay could be

brought down. The scheme will result in an annual profit of Rs. 98,000 on a net additional investment of Rs. 2 38 lakhs in the Second Five Year Plan period.

11. The clay produced will be sold to the Travancore Cements for the production of white cement and also to other customers engaged in the textile, paper, pottery and rubber industries.

12 The plan provision for the scheme is Rs. 2·38 lakhs.

2. Travancore Rubber Works.

13. The main lines of production of the factory at present are cycle tyres, cycle tubes, tubing, sheetings, hose pipes, ebonite goods, foot-wear and various other moulded goods besides latex, sponge articles like cushions for transport vehicles, etc. Travancore Rubber Works is supplying the State Transport with rubber goods like cushions, etc There are regular agents for sale of the various articles produced by the Company in Madras, Bombay, Calcutta, Bangalore besides the towns in Kerala State. Large quantities of rubber articles are also regularly supplied to the Director General of Supplies and Disposals and other departments, Railways, etc.

(i) Modernisation and expansion of production programme of cycle tyres, etc.

14 The equipment of the factory, mostly purchased as early as 1935, stands in urgent need of repairs, replacement and modernisation, if the factory is to compete effectively with a number of modern units now springing up all over the country, as also with the major producers of rubber goods A programme for this has been included in the Second Five Year Plan.

15 Its total production will be 6 lakhs of cycle tyres and tubes per annum The industry will thus have the advantage of catering to an assured market Further expansion will be considered after the success of the present proposal is assured. The total cost of the scheme mentioned above is Rs. 9 50 lakhs.

(ii) Manufacture of cycle rims.

16. The Rubber Works have also a plan to manufacture cycle rims, which is a product easily saleable with the cycle tyre and tubes already being manufactured by the factory. The target aimed at is 6 lakhs rims per annum. The financial target is Rs 6 65 lakhs

(iii) Enhancing capacity of Cycle Tyres and Tubes production.

17 The present installed capacity of Travancore Rubber Works for production of Cycle Tyres is about 2,50,000 and that of cycle tubes is about 3,00,000 on the basis of two 8-hour shifts each Four more cycle tyre presses have been already ordered to increase the capacity of cycle tyre production to about

3,50,000. The present output of cycle tyres and tubes is insufficient to meet the increased demand for them The scheme for modernisation and expansion provides for enhancement up to only about 6 lakhs of Cycle Tyres and Tubes This scheme aims at further enhancing the Cycle Tyre production to 12 lakhs of Cycle Tyres and Tubes in two 8-hour shifts

18. A provision of Rs. 12 lakhs has been made for this scheme in the Second Five Year Plan

INDUSTRIAL ESTATE.

19. An Industrial Estate is a group of factories established, close to townships, on a site specially suitable for the conduct of industries, where light, water, power, transport, communications and marketing facilities are available Factory buildings are owned by Government and hired to small industrialists. The Government will also conduct common service workshops and render further help in procuring raw materials and disposing of products. Government of India Small Industry Service Institute will render all possible technical advice and help to industrialists Supply of machines on hire purchase system will be readily arranged for prospective buyers. Rent will be fixed considering the capacity of industry also. Subsidies on rent will be given during early years.

20. The original idea was to have two very large Industrial Estates, but this idea was modified, and it was decided to open much smaller estates, one in each Revenue District, as that would be more helpful to the people of this State

21. Industrial Estates have been planned, one in each district Seven of them are located at the following places

1. Pappanamcode (Trivandrum District)
2. Kollakadavu (Alleppey District)
3 Ettumanoor (Kottayam District)
4 Ollur (Trichur District)
5. Palghat (Palghat District)
6. Kozhikode (Kozhikode District)
7 Tellicherry (Cannanore District).

It is proposed to establish one Industrial Estate in the Quilon District, subject to the approval of the Government of India It is also proposed to establish one Small Industrial Estate in the Kuttanad Development Block.

The financial target for the scheme is Rs. 81 95 lakhs.

SMALL SCALE INDUSTRIES.

22. The financial target for "Small Scale Industries" is Rs 178 38 lakhs. This is intended for the following schemes:—

1. Chain Stores.

23. The object of this scheme is to have chain stores as sales emporia for the products of the various production-cum-training centres. 9 Units of the Chain Stores are proposed to be started one in each District.

2. Model Blacksmithy Unit.

24. The object of the scheme is to give proper training to local artisans, who are engaged in making different types of agricultural and house-hold implements furnishing them with improved tools and modern machinery

3. Model Carpentry.

25. The scheme is for imparting training in carpentry with modern implements. This will enable our local artisans to produce more modern items of furniture. Works for the manufacture of various items of furniture have been taken up in the Centres located at Trivandrum and Trichur.

4. Model Footwear.

26 The scheme is intended to give scientific training to our local cobblers in manufacturing wallets, shoes, belts and other leather products using modern tools and equipments. Two units of this are located one at Industrial Estate, Pappanamcode and one at Cannanore Training is also imparted to selected trainees.

5 Model Sports Goods Manufcturing Unit

27 This scheme is intended to produce sports goods at lower cost at the same time giving training to our local artisans. This is located at the Industrial Estate, Ollur. Building for this Centre has been constructed and machinery ordered for

6 Manufacture of Holdalls.

28 This is also a scheme proposed to be run as a production centre at the N. E S Block, Nedumangad About 15 people will be employed in the Centre and the working capital amount would be recovered as sales proceeds

7. Manufacture of Barbed wires.

29. This Unit would be functioning as a Production-Centre only and so the amount allotted as working capital is expected to be recovered on sales of the products The Unit will be located in Quilon

8. Manufacture of furniture, door and window frames.

30 This envisages manufacture of furniture, doors and window frames, building materials etc. using modern equipment on modern lines. Two centres are located in the N. E. S. Blocks at Ranni and Thodupuzha.

9 Foundry.

31. This scheme is proposed to be a purely commercial one. The main object of the scheme is to supply cast iron articles to meet the urgent needs. The Unit will be established in Tellicherry.

10. Manufacture of Cycle valves.

32 The Trivandrum Rubber Factory is manufacturing lakhs of cycle tubes per annum for which valves are being purchased from Calcutta at about 3½ annas each It is proposed that the cycle valves can be locally produced for about 2½ to 3 annas per set Even though the employment potential of this industry is not much this could be run on profitable lines and with the expansion of the Rubber Factory this Centre could meet all the demand of the cycle valves required by the Rubber Factory. The centre will be located in the Trivandrum Industrial Estate.

11. Manufacture of Hardware fittings.

33 This is primarily a smithy centre Hardware fittings required for construction of houses will be manufactured on modern lines in this centre These Units are located in the N E S Blocks, Chittoor and Tellicherry

12. Cycle parts.

34 Two centres are intended for the production of Cycle parts It is proposed to locate one centre in the N E S Block, Chirayinkil and the other in the N E S Block, Kuthuparamba

13. Woodwork and Carpentry.

35 The scheme envisages the establishment of two production-cum-training centres in wood-work and carpentry in the Trivandrum Industrial Estate The main objects of the scheme are to train village artisans in the use of wood-working machinery and to standardise the quality of the products by the use of improved machinery The scheme has been started during the year 1956-57 There is provision in the scheme for employment of 22 persons. Training facilities for 16 trainees are also provided.

14. Tannery Production-cum-training Centres.

36. Two Mechanised tanning centres are proposed to be started one in Changanacherry and the other in Palghat District Twelve stipendiary trainees are proposed to be trained in each of these centres Simultaneously with training, production programme would also be carried out to make the centre self-sufficient. The centres are located keeping in view, availability of raw materials and special suitability of the location for the industry

15. Production-cum-training centres—Glazed pottery at Changanacherry.

37 At present the village potters confine themselves to the manufacture of earthenware pots and pans only. It is proposed to give some of them necessary training in the art of glazing so that they may gradually take to the manufacture of such items as domestic utility articles, decorative pieces etc.

38. Eight stipendiary trainees will be trained per year at this centre.

16. Locks manufacture and blacksmithy.

39 It is proposed to start two production-cum-training centres one at Trivandrum Industrial Estate and the other at Thottappally Housing Colony The main items of work will be the manufacture of locks of various sizes, cutleryware such as penknives, tables knives, spoons, and general light blacksmithy work After the initial period of two or three years during which period, they will act as purely production-cum-training centres, they will be handed over to the Co-operatives organised by the workers on loan The main idea behind this scheme is to modernise the existing blacksmithy shops in the area and thus promote rapid rural mechanisation in the industrial and agricultural fields

17 Precision Instruments.

40. This is a scheme for the establishment of a production-cum-training centre expected to be run along with the Central Instrument Workshop, Trivandrum. Central Instrument Workshop was primarily intended as a repair shop and hence the staff and equipments are not adequate for production work Under the circumstances it was thought that a separate scheme for the manufacture of scientific instruments may be started along with a training programme to overcome shortage of necessary technical personnel.

41 This scheme envisages manufacture of a number of scientific instruments including speedometers, taximeters, etc , and to start with, it is proposed to manufacture prismatic compass, surveying instruments, etc After two or three years, this centre could be converted into a good commercial centre run either by Government direct or by Co-operative Societies.

18. Plastic Industry.

42 This is a scheme for the manufacture of toys and utility articles from polythene and poly styrene. There is provision for imparting training to 12 stipendiary trainees per year. The scheme has been partly implemented at the Women's Industrial Co-operative Society, Neyyattinkara. Now, it is proposed to locate the centre in the Occupational Institute, Trichur

19 Glass Bangles and Beads training Centre, Kasargode.

43. This centre has been in operation for seven years now There is a provision for training fifteen candidates per year in the art of making glass beads and bangles There is a proposal to introduce the manufacture of hollow ware also. Located in Kasargode, this centre may be described as the northern most outpost of the Department of Industries.

20. Cloth Printing and Dyeing Centre at Kottarakara

44. This scheme is intended to be of benefit to handloom weavers. It was established during 1956-57 Training is imparted in dyeing of yarns and block printing of cloth It is located at Paruthiyara in Kottarakkara N E. S. Block.

21. Bell Metal Industry.

45. The 'Bell Metal' industry is proposed to be started in the training school at Irinjalakuda as a production-cum-training centre

22. Cutlery service Centre.

46 Under this scheme pen knives, scissors, table knives, table spoons etc., will be manufactured. The unit will be established in the Industrial Estate, Palghat.

23 Cart Wheel hub manufacturing Centre.

47. This is a centre wherein it is proposed to manufacture cart wheel hubs using lathes and Drilling machines for the use of village carpenters. This is a service scheme. The unit will be established in the Industrial Estate, Palghat.

24. Toy Making.

48 The scheme is to establish a production-cum-training centre at Trichur in Toy-making It is proposed to make children's tri-cycles, clock work toys and also wooden toys The scheme is proposed to be implemented in 1957-58

25 Combined Carpentry and Blacksmithy Unit, Kozhikode

49 The object of the scheme is to train village carpenters and blacksmiths in the use of modern machinery and raise the quality of the products The schemes have been sanctioned by the Government of Madras, in 1956 There is provision in the scheme for the employment of 46 persons

26. Wood seasoning plant at Kozhikode

50. It is a fact that the forests in this State contain a variety of timbers which are not now utilised to the full extent due to various reasons. Many people insist upon quality wood such as teakwood or rosewood for their main requirements even though it is possible to get cheap wood, treat the same and use it for all requirements. The plant proposed in the Industrial Estate at Kozhikode will take up treatment of size timbers required for manufacture of doors and windows, rafters, railway sleepers etc.

27 Lacquer Industry

51. This scheme has been implemented temporarily through the Women's Industrial Co-operative Society, at Neyyattinkara during 1956-57 The necessary staff has been provided by the Society and 6 trainees selected from among the members of the society, are undergoing training.

28. Footwear Service Centre

52. This unit is functioning at Palghat This is a machanised footwear centre and along with the production programme servicing work for the local small scale footwear manufactures would be undertaken Considerable demand is expected for the products which would be definitely competitive in price and good in quality.

29. Ceramic service Centre, Cannanore.

53. This is a scheme for the establishment of a Service Centre at Cannanore, for the preparation and supply of standardised Ceramic bodies, Glazes, colours, etc , to small-scale and cottage manufacturers A community kiln has also been provided for the use of the manufacturers where the articles produced by them can be got finished on payment of actual cost.

30. Loan to Small Scale Industries

54. This is for the grant of aid to Small Scale Industries under the private sector

31. Central Instruments Workshop.

55 This is a commercial scheme wherein repairs to all makes of Scientific instruments such as Prismatic compasses, Theodolites, Levels, Drawing instruments etc., are carried out for the last twenty years This is one of the very few centres in India where lenses and prisms are made.

32 Import and Manufacture of Small Industry Machines

56 This is primarily a commercial scheme where in it is proposed to manufacture small machines such as Do-all machines, Hand drilling machines, Bench vises, Motor Driven Pedestral Grinders, Moulders, Blowers, Circular saw, screw cutting lathes, etc , which are suitable for Cottage and Village Industries and give these either on hire purchase or on outright sale to parties.

33 Machine shop at Neyyattinkara.

57 Various machines such as wood working do-all machines, wood turning lathe, take up motion for handlooms etc are proposed to be manufactured. This will be taken up as a production-cum-training centre These centres will be handed over to Co-operative societies after two or three years

34 Smithy at Neyyattinkara.

58. All sorts of utility articles will be manufactured in this centre using modern equipments

35 Carpentry at Vazhimukku, Neyyattinkara

59. The scheme envisages the establishment of production-cum-training centre in Carpentry at Vazhimukku in Neyyattinkara.

36. Aid to Industrial Co-operatives and Industrialists.

60 This is intended for giving loans to Industrial Co-operatives and individual industrialists engaged in small-scale industries for development of their industries in accordance with the rules prescribed for the purpose.

37. Tile Factory.

61 Even though there are a number of tile factories in the State there are only a few, the products of which are approved by the Public Works Department, and hence there is a great dearth of this valuable building material in the market especially for Governmental works Both asbestos, cement sheets and G I corrugated sheets are not available in the market readily as roofing materials and hence there is great demand for quality tiles, both roofing and flooring. It is proposed to be started in Neyyattinkara

38. Manufacture of Electrical Accessories at Neyyattinkara

62 Owing to rapid increase in the area under electrification in the State a large number of electrical epuipments will be required Even though India is for the present able to produce all its requirements in this field of small electrical equipment, it has been estimated that unless there is rapid increase in the production of these during the next few years there will be short supply in the market, in the near future The scheme envisages manufacture of switches, plugs, connectors, transformers and small electrical motors, electric cookers and heaters all of which are not difficult to manufacture on decentralised basis

39. Neon Signs

63 With the rapid progress in the marketing and advertising methods, there ought to be a great demand for Neon Signs At present there are only about 11 factories in India engaged in this industry while it is reported that Tokyo city in Japan alone has about 100 plants This scheme is expected to bring an yearly profit of about Rs 10,000 and give employment to about 18 persons

40 Service Workshops and Metal Industries in Industrial Estates

64 The need for a Service Workshop in each Industrial Estate will be keenly felt when a number of Industries are started in each Estate The Service Workshop will be in a position to take up work in the manufacture of dyes, templates, jigs etc , and also in the design of small tools essential for the production work in various industries

65 It is in fact due to lack of these facilities that industries are not able to progress The nature of the service rendered will depend upon the nature of industries in each Industrial Estate But a few precision general purpose machineries which the small scale industrialists cannot afford to purchase will be available in these service workshops In addition to this, these workshops will be able to take up some sort of production works as well, in manufacture of heavy agricultural implements, cutlery and hardware fittings, machine parts etc., so that it will be possible to run these centres on a no-profit no-loss basis, during the initial period of two or three years

41. Straw Board Factory.

66 There is a great scope for the production of straw boards in India There are about 37 firms in India engaged in manufacture of straw boards with a total production capacity of sixty thousand tons while the demand for the board is at present about 99,000 tons per year It is anticipated that during the next few years the demand would be nearly 1 3 lakhs tons or even more. Consequently there is a great scope for this industry in Kerala, especially due to availability of necessary raw-materials Hill grass, fibres, paddy straw, plantain fibres, Begasse etc, are excellent raw materials for this industry. These are available in plenty in our country sides and it is proposed to have 3 such small factories in the State during the next 4 years each with an installed capacity of 1 ton per shift In order to reduce excise duty payable on the manufacture of paper boards the factories are proposed to be run on a semi-mill process basis. About 50 persons can be engaged in each of these factories.

42 Manufacture of Auto-rickshaws.

67. Owing to rapid increase in the standard of living of the working class in general, there is a definite tendency to replace mandrawn rickshaws by auto-rickshaws Some co-operative societies of Rickshaw pullers have been formed, with a view to replace all the existing hand-driven and pedal driven rickshaws by Auto-rickshaws The proposal is to purchase essential component of rickshaws such as engine, wheels, transmission etc , and to fabricate chassis and the body locally to start with. Gradually all the components can be manufactured here It is estimated that an Auto-rickshaw will not cost more than Rs 1,500 in initial stages. Ultimately it will be possible to sell these rickshaws at a cost of less than Rs. 1,000.

43. Village Workshops in N E. S Blocks

68 Everywhere in the world rural industrialisation has preceded farm mechanisation. If better tools and implements are to be introduced in the agricultural sector, an industrial consciousness has to be created in the minds of the villagers The basic idea for improvement has to come from the actual person in the field and nobody can be a better judge in this regard than the villager in finding out what exactly he wants These model village workshops are expected to give necessary technical help to the village artisans to designing and servicing of all rural equipments such as pumps, filter points wells, ploughs, tractors, seed drill, carts etc. These village workshops will contain a small machine shop, a carpentry shop, and a smithy shop and can take up all types of servicing work. It is proposed to run these centres on a no-profit no-loss basis for the first two or three years until the artisans are able to operate these machines themselves Each workshop is estimated to cost about Rs. 50,000 and would be in fact, the nucleus of all industrial activity in the block.

44. Fruit Preservation Scheme.

69 Fruits produced in the State are not fully utilised to the full advantage at present The main question to be tackled is the preservation of fruits against damage and there are very few factories for fruit preservation in the State.

The scheme envisages:

(1) Opening of 2 factories for fruit canning and manufacture of various other preservations ..	Rs 1·50 lakhs
(2) Giving loans to enterprisers in fruit preservation .	Rs. 0·60 lakh
	Rs. 2 10 lakhs

45. Controlled credit schemes for financing Small Scale Industrial entrepreneurs..

70. There are a number of skilled craftsmen who cannot take up any small scale industries for want of capital or resources Such people are not able to take any loans because they are not able to offer any security It would be a waste of talent if the knowledge and experience of these people are not fully utilised for the development of the country With a view to help these entrepreneurs it is proposed to start a factory or workshop according to the designs submitted by the entrepreneurs and approved by the Industries Department. Such factories will always be located in Industrial Estates. The Department will then have the control over the production and marketing of the goods produced in these factories The party will have to pay a certain amount of the sale proceeds of the product to the Government towards the cost of the factory. It is expected a large number of skilled artisans and other private industrial entrepreneurs would be able to take the advantage of this scheme to a considerable extent.

46. Quality Control.

71 This is a scheme taken up to ensure the quality of the various goods made in the State, so that spurious industrial goods which are of low quality are not put in the market Only those articles which conform to certain specifications laid down will be recommended to various Stores Purchase Authorities. It is proposed to take up half a dozen articles for quality marking immediately.

47. Nuts and Bolts.

72. This scheme is intended to manufacture nuts, bolts and other utensils in iron which has a great demand in the State

48. Coconut Pith Industry

73 In order to manufacture utility articles out of Coconut Pith which is abundant in the coastal area of the Kerala State this scheme has been taken up for implementation The scheme envisages both production and training

49 Printing Unit in the Pilot Project, Neyyattinkara

74. It has been decided to start a printing unit under the auspices of the Neyyattinkara Pilot Project during 1958-59 There are a good number of handloom co-operative societies engaged in the weaving of standard cloth It is also proposed to start a bleaching and calendering unit during the next year To have good quality cloth printed and marketed, it is considered highly essential to start a printing unit in this area The printing is to be done by hand using wooden block having attractive designs It is proposed to engage a number of workers mostly women on piece-work basis to run this unit The most important aspect of the scheme is to get good market for the cloth produced by the various societies in this project area.

50 Aid to Food Preservation by way of loans in Neyyattinkara Pilot area

75. This is intended for giving loans to Food Preservation unit run by private parties

51 Social Welfare Schemes

76. The Government of India have set apart Rs. 2·5 crores for the establishment of production units to be attached to State Homes under the Central Social Welfare Boards programme, and accordingly, it is proposed to start certain units under the Skippo Committee at Ottappalam and Guild of Service at Kozhikode. The following are the schemes proposed to be taken during this Second Five Year Plan period —

(1) Manufacture of Envelopes, Paper bags etc for the Skippo Committee at Ottappalam

(2) Scheme for the manufacture of Chalk Crayons-Scheme for the Skippo Committee, Ottappalam

(3) Scheme for the manufacture of shoe eyelets at Kozhikode (Guild of Service at Kozhikode)

(4) Manufacture of Phynile

77 The physical and financial targets of the above schemes are given below:—

Sl No	Name of the scheme	Physical targets.	Financial targets
		Units	(Rs in lakhs)
1	Chain Stores	9	11 60
2	Model Blacksmithy Unit	2	3 63
3	Model Carpentry Unit	2	3 98
4	Model Foot-wear Unit	2	3 68
5	Model Sports Goods Manufacturing Unit	1	2 00
6	Manufacture of Holdalls ..	1	2 39
7	Manufacture of Barbed wire	1	4 21
8	Furniture Door and Window Frames	2	1 96
9	Foundry	1	3 35
10	Manufacture of Cycle Valves	1	1 29
11	Hardware fittings ..	2	2 07
12	Cycle parts	2	2 79
13	Wood Work & Carpentry ..	2	2 78
14	Tannery Production-cum-training centres	2	3 23
15	Glazed Pottery—Production-cum-Training Changanacherry ..	1	1 66
16	Lock Manufacture & Blacksmithy ..	2	2·42
17	Precision Instruments ..	1	3 01
18	Plastic Industry ..	1	0 75
19	Glass Bangles & Bead Training Centre ..	1	2 19

Sl. No.	Name of the scheme.	Physical targets	Financial targets.
		Units	(Rs in lakhs)
20	Cloth Printing & Dyeing .	1	1·10
21	Bell Metal Industry ..	1	1·47
22	Cutlery Service Centre, Edathara	1	0·73
23	Cart Wheel Hub Manufacturing Centre	1	0 50
24	Toy making Industry .	1	0·72
25	Combined Carpentry & Blacksmithy.	1	4·89
26	Wood Seasoning Plant	1	2 81
27	Lacquer Industry ..	1	0·72
28	Footwear Service Centre	1	3·42
29	Ceramic Service Centre .	1	3 94
30	Loans to Small Scale Industrialists .	..	20 50
31	Central Instrument Workshops	1	2 00
32	Import of manufacture of Small Industry machines ..	1	3 50
33	Machine shop at Neyyattinkara ..	1	1 69
34	Smithy at Neyyattinkara	1	2 50
35	Carpentry at Vazhimukku, Neyyattinkara .	1	1 25
36	Aid to Industrial Co-operatives and Industrialists ..	10	5 00
37	Tile manufacture in Pilot Project ..		0·80
38	Manufacture of Electrical accessories in the Pilot Project area ..		0·75

Sl. No.	Name of the scheme	Physical targets	Financial targets.
		Units	(Rs. in lakhs)
39	Neon Signs	1	0·50
40	Service Workshops and Metal Iudustries in Industrial Estates	2	12·00
41	Straw Board Factory	2	3·00
42	Auto Rickshaws	1	3 20
43	Village Workshops in N. E. S. Blocks	30	15 00
44	Fruit Preservation Scheme	2	2 10
45	Controlled Credit Scheme for financing Small scale entrepreneurs		15 00
46	Quality Control Scheme	1	2·00
47	Nuts and Bolts	1	1 50
48	Coconut Pith Industry	5	2 50
49	Printing Unit in Pilot Project		0·50
50	Aid to Fruit Preservation (by way of loans) in Neyyattinkara		0 30
51	Social Welfare Schemes	6	3·50
	Total		178 38

HANDLOOM DEVELOPMENT

78 The number of looms in the State according to the Census report of 1950 is 1 25 lakhs and approximately 2 5 lakhs of people are depending on the Handloom Industry in this State

79 The schemes drawn up for the development of Handloom Industry are the following —

1 Promotion of marketing and publicity

80 Steps taken to increase the quantum and improvement of quality of production have to be followed by measures to enlarge existing markets and opening of new marketing depots.

81. By doing intensive propaganda and advertisement a favourable climate is being created for the sale of handloom cloth. Financial assistance is being given to co-operative societies both primary and central, to open new depots, and to run mobile sales vans. Rs. 4 47 lakhs is provided for this scheme.

2 Issue of loans.

82. Out of 1·25 lakhs of looms in this State, only about 40,000 have been brought within the co-operative fold The co-operative method has been found most suitable for organising independent weavers. Share capital loans are advanced to weavers to stimulate them to organise themselves into co-operatives. Formerly working capital loans also, were issued to them direct from the Cess Fund Now working capital loans are routed through the Reserve Bank of India. Rs 20·0 lakhs has been provided for this item.

3 Opening of Dye Houses.

83 The scheme aims at the supply of bleached and dyed yarn for use on handlooms in guaranteed fast colours 20 Dye Houses are proposed to be opened, both big and small, during the Plan period at a cost of Rs 3 69 lakhs.

4 Establishment of Pattern Weaving Factories

84 It is proposed to open a new Pattern Weaving Factory besides the one at Cannanore The Factory will be evolving new designs to suit the changing tastes of the consuming public and these new patterns will guide the several Weavers' Co-operatives in their production. The provision of Rs 0 38 lakhs is meant for the establishment of a new factory and the maintenance of the one already existing at Cannanore

5 Organisation of Industrial Co-operatives

85. This is a scheme specially drawn up considering the unique set up of the Handloom Industry in Malabar Weavers of this area work in factories The conditions in many of these factories owned and run by capitalists are not very happy and the weavers working on wage basis have no guarantee of continuous employment Their problem calls for a different solution. Financial assistance towards share capital and working capital, purchase of looms and accessories, land, building, etc are given for converting these factories into Industrial Co-operatives Already four Industrial Co-operatives are successfully working in this State. Rs 20 00 lakhs is proposed for 12 Industrial Co-operatives

6. Training of Weavers.

86. It is proposed to give training to selected weavers in the use of modern appliances in the pattern making factories These weavers will be given stipend during their training period 200 weavers are proposed to be given training at an estimated cost of Rs. 0·60 lakhs.

7. Research and Technique.

87 The technical efficiency of the Handloom Industry has to be stepped up to keep up the standards and improve the designs and output Weavers have to be assisted in the use of improved appliances and labour-saving devices. Primitive type of throw shuttle pit looms are to be replaced with fly shuttle frame looms, and the use of dobbies, jacquards, pick regulating devices, etc are aimed at The weavers will be assisted in this change over by providing the entire cost as grant. A sum of Rs. 4·0 lakhs is provided under this item.

8. Sanction of Rebate.

88. Rebate grants are given to Weavers' Societies at the rate fixed by the All India Handloom Board from time to time to stimulate easy sale of handloom cloth Rs 55 49 lakhs is included under this item.

9. Cotton Spinning Mill

89. It is essential that raw material, viz. Cotton yarn, is made available to the Handloom weavers at reasonable rates For this purpose it is proposed to establish one Spinning Mill having a spindleage of 24,000 at Trivandrum to cater to the needs of the Handloom Industry At present not enough yarn is locally produced with the result that the Handloom weaver is forced to buy yarn at exhorbitant rates from mills outside the State.

90 The Spinning Mill at Trivandrum is in the public sector, and the preliminaries like purchase of land, preparation of Plan and estimates, etc , have been completed The construction work of the building is in progress, and machinery is expected to arrive shortly. The financial target for the scheme is Rs 48 05 lakhs.

10 Research and Experimental-cum-Training Centre

91 In order to link handloom production with the changing taste and demand of the consumers, and to enable the weavers to have a better *per capita* income improved techniques have to be introduced, and the know-how of these appliances taught. With this end in view a Research-cum-Training Centre is proposed to be established at Trivandrum to enhance the technical efficiency of the Industry

92 The necessary buildings for the Centre are nearing completion at Trivandrum. The estimated financial target is Rs. 3·32 lakhs.

KHADI AND VILLAGE INDUSTRIES—ADMINISTRATION.

93 As cent per cent of the cost of the schemes approved by Khadi and Village Industries Commission other than organisational expenditure will have to be borne by the Commission, only the cost of administration has to be met by the State. A sum of Rs 9·81 lakhs is set apart for meeting the Board's expenditure on administration, for the Plan period. The amount required for each year on organisational expenditure will be given as grant to the Board by the State Government. The budget of the Board will be approved by the State Government every year

94. The details of the schemes to be implemented by the Khadi Board are given separately on pages 222 to 226 below under "Central Sector".

HANDICRAFTS.

1 Service-cum-training Centre for Bell Metal Industry.

95. The centre is proposed to be started at Payyannur in Cannanore District In this centre training will be given to Village artisans in the use of improved equipments and machinery. The Centre will also be of service to the local artisans in giving a better finish to their products The Plan provision for the scheme is Rs 0·62 lakh

2 Dyeing and Printing

96 The scheme is mainly intended to give training in Dyeing and Printing A centre has already been started at Payyannur where weaving is carried on, on a large scale. The provision for the scheme is Rs 0 80 lakh

3 Production-cum-training centre for Development of Cane Industry.

97 The Centre is proposed to be started at Cannanore District. This will be a production-cum-training centre where articles of utility will be produced out of Cane and training in the improved method of production will be given to students. The Plan provision for the scheme is Rs. 0·48 lakh

4 Service-cum-training Centre for Art Metal Ware

98 In Kozhikode District there is ample scope for the manufacture of artistic metal ware such as Hookahs, Electric lamp stands, flower vases, Bathi stand, etc. The artisans engaged in this industry in Quilandy area produce articles of great artistic excellence If sufficient impetus and careful training are given to them they can develop this industry to a considerable degree. Traini g centre in the art metal ware will be started at Kozhikode. The plan provision for this scheme is Rs. 0·57 lakh.

5. Service-cum-training Centre for Bamboo Articles

99 It is proposed to start the Centre at Kolayad in Cannanore District The Plan provision for the scheme is Rs 0·725 lakh.

6 Horn, Wood and Ivory Carving Industry

100 With the vast resources of raw materials available in our State, if proper training, adequate finances and marketing facilities are provided, these industries are bound to flourish and bring a large number of artisans in their fold With this object in view, a scheme to give training in the improved method of carving on horn, wood and ivory is proposed to be taken up The Co-operative and other Registered Institutions will also be encouraged by giving financial assistance. The Plan provision is Rs. 1 08 lakhs

7. Training Centre for Mat Weaving, Screwpine and Kora Grass.

101 Mattings of various designs and patterns and fancy and utility articles are manufactured from the Screwpine and Kora grass. Hand bags, purses, hats, foot-ware for children, table mats for dinner sets, etc, are some of the common articles made out of screwpine leaves The possibility of fabricating many other useful and fanciful articles with this material is great, if proper training is given to the workers. The scheme envisages training in screwpine and kora grass industry on modern lines of production The Plan provision for this scheme is Rs 0 80 lakh

8. Training Centre for Toy and Doll making

102 Toy making is an ancient craft and every house is a home of this industry. Different raw materials that are employed for making dolls in our State are clay, metal, wood, grass, rags, paper, etc. With these resources and with the inherent skill of our craftsmen, it would be possible to expand the industry to a great extent Training will be given to a few students in the art of toy making in the modern technique The Plan provision for this scheme is Rs. 0 80 lakh

9. Palmyrah leaf Industry

103. A wide variety of articles can be prepared from palmyrah leaf As the raw material is found in plenty and as the finished articles are not costly, it would be possible to create a good demand for such articles. Shopping bags, water-proof bags, hand bags, purse, etc , are some of the fancy and utility articles that can be made out of palmyrah leaf Under this scheme training facilities are made available to those who are interested A training centre is being started The Plan provision for the scheme is Rs 0 36 lakh

10 Training Centre for Cane, Rattan, Bamboo and Reed.

104. In the forest flora of the State, bamboo, reeds, cane and rattan occupy a place next to timber yielding trees, viz teak, rose-wood and black wood In lightness, strength, elasticity and cheapness, it is suitable for various kinds of articles like shopping bags, lamp shades, flower vases, etc By introducing new designs in the existing articles and by fabricating new articles with cane and rattan, this industry can be developed to a considerable extent If more training facilities are afforded to artisans, it will not only result in the increased utilisation of raw materials, but will also provide employment to a very large number of craftsmen Hence the proposal under this scheme is to give training in the modern technique of production. The Plan provision for the scheme is Rs 1 76 lakhs

11. Training Centre for Fibre Industry.

105. Considering the enormous resources of fibre available in the country and also the vast potentialities for its use for a number of purposes it is very necessary to devise ways and means to develop this industry on a sound and systematic basis.

For the promotion of this industry on modern lines, training will be given under this scheme to the village artisans The Plan provision is Rs 0 84 lakh.

12 Brass, Copper and Bell Metal

106. In Brass, Copper and Bell Metal different kinds of utility and artistic articles are produced There is scope for expanding this industry considerably with the skill available in the country Steps are well under way for starting a training centre at Pulikeezh to train artisan students in using improved tools and implements The Plan provision is Rs 0 92 lakh.

13. Lace and Embroidery (Training in Lace and Embroidery)

107. Embroidery as ornamentation for woven fabrics has been known in India since ancient times. A variety of materials has been employed for embroidery Leather, Velvet and Silk are used as base for cotton, woollen, silk and gold thread embroidery work. If the industry is conducted in a systematic and improved way, a large number of women folk can find work in this industry A programme to give training is being implemented by the State. The Plan provision for the scheme is Rs. 0 76 lakh

14 Dyeing and Printing

108 The scheme is intended for giving training in Dyeing and Printing on cloth and nets. The Plan provision is Rs 0 30 lakh.

15 Papier Mache Industry.

109 The papier mache products reveal the artistic ingenuity of the craftsmen Bowls, powder boxes, trays, vases, etc, of gorgeously painted papier mache attract every eye If only concerted efforts are made to train people in the art with further help in the form of finance, the trained people would be enabled to get sustained employment Training will be imparted to students in this industry under this scheme. Financial aid by way of grants will also be given to co-operative societies The Plan provision for the scheme is Rs. 0 80 lakh.

16. Conch Shell Industry

110 Shells found in the coastal areas of the State are of excellent quality and are highly valued on account of their white colour and uniform size. From these shells, buttons, chains, and toy figures are made Training will be given to a few students in this Industry. The Plan provision for the Plan period is Rs. 0·60 lakh.

17 Lacquerware Industry

111. Lacquer work consists of turning wooden articles and applying a coat of coloured shellac by friction, by hand operated, foot operated or machine operated lathe There is scope for developing this industry since various types of soft wood are available in the State. A training centre to impart training in this industry is being started. The Plan provision is Rs. 0·84 lakh.

18. Tailoring and Garment making.

112. The scheme aims at imparting training in Tailoring and Garment making. There is wide demand from all corners of the State for starting more of this industry At present there are 8 centres working In four centres 128 students are being trained. The plan provision for this scheme is Rs 0·84 lakh.

19. Organisation of Societies.

113 It is proposed to organise co-operative societies of artisans to help them develop their craft with assistance from Government instead of from private sources which are likely to exploit the artisans The total Plan provision is Rs 4·805 lakhs.

20. Opening of Emporia.

114 The scheme envisages opening of 3 Emporia, one each at Trivandrum, Ernakulam and Kozhikode to exhibit and sell the products of Khadi and Village Industries The emporia at Trivandrum and Ernakulam have already been opened. The Emporium at Kozhikode will also be opened immediately It is proposed to have a handicraft adjunct to the emporia. The Plan provision for the scheme is Rs 3 lakhs

21 Multipurpose Work Centres

115 It is proposed to start multipurpose work centres in 5 Districts on smaller scale The Plan provision for the scheme is Rs 1·78 lakhs

22 State wide Scheme (Exhibition and Competition)

116 For popularisation of the products of Khadi and Village Industries and handicrafts, organisation of exhibition and competition is of utmost importance It is therefore proposed to organise exhibition and competition during important festivals and other occasions when people congregate in large numbers. This scheme will educate the public in the development of these industries in the State The provision for the scheme is Rs 0·30 lakh

SERICULTURE

117 The entire expenditure is to be incurred on the demonstration silk farm at Ambalavayal in Wynaad, Kozhikode district It is proposed under the scheme to develop mulberry cultivation, rearing of cocoons, etc The main purpose of the scheme is to demonstrate the advantages of Sericulture as a part time job to the colonists at Wynaad to improve and supplement their economic conditions The provision for the scheme is Rs 5·13 lakhs.

RURAL INDUSTRIALISATION SCHEME.

118. The scheme envisages the organisation of rural industrialisation co-operative societies, and Multicraft societies of villagers employed in cottage industries. The provision for the scheme is Rs. 20 65 lakhs.

COIR DEVELOPMENT.

119. Coir is the primary cottage industry in the State. This industry is peculiarly indigenous and unique in our region. The peculiar natural conditions prevalent in the coastal regions of the State have given an impetus to the growth of this industry in the coastal areas. The industry fell into the doldrums after the boom consequent on the Second World War had disappeared. In order to rehabilitate it, a Coir Co-operative Scheme was drawn up and included in the First Five Year Plan. The main lines of approach to the problem were the organisation of Primary Coir Co-operative Societies, Central Coir Marketing Societies, and Societies dealing in raw husk, spread over the entire area of the State.

120. The scheme included in the Second Five Year Plan aims at the further strengthening of Societies referred to above. The Societies will be given financial assistance by way of grants and loans. The programme for Coir Development and its financial outlay are detailed below —

Sl No.	Details of the Scheme.	Plan 1956-61 units	Grant	Loan.	Remarks.
			Rs.	Rs.	
1	Primary Societies .	240	7,20,000	81,30,000	The allocation amongst various items may have to be readjusted according to the needs of each item.
2	Thondu Societies .	37	2,20,000	10,00,000	
3	Central Marketing Societies (including 2 already organised) .	3	2,50,000	22,50,000	
4	Coir Mats Mattings Societies .	8	80,000	8,00,000	
5	Rope Manufacturing Factory Societies	2	50,000	6,00,000	
6	Co-operative Union .	15	1,50,000	..	
7	Departmental cost .	..	7,50,000	..	
	Total .		22,20.000	1,27,80,000	
	Grand Total		Rs. 150 lakhs.		

1. Primary Societies.

121 The Primary Coir Vyavasaya Co-operative Societies will purchase the raw husk and arrange for their retting The retted husks will then be supplied by these societies to their members who will spin them into yarn, according to the required specifications and return the yarn to the Societies They can also undertake direct production through their members. These Societies are eligible for loan and grant as prescribed from time to time

2. Thondu Societies

122 The Thondu Vyavasaya Co-operative Societies will collect, transport and supply the raw husk, the only raw material required for coir industry, to the primary societies These societies are also being given loans and grants.

3 Central Marketing Societies.

123 These societies arrange for the transport of the yarn from the primary societies, stock it in their go-downs and sell them when the market is favourable At present there are two Central Marketing Societies at Alleppey and Cochin It is proposed to organise one more society at Kozhikode

4. Coir Mats and Mattings Societies and Rope Manufacturing Factory Societies

124 So far only the production of yarn has been brought into the co-operative fold and not the production of finished articles like mats, ropes, etc In order to bring the entire industry into the co-operative fold it is necessary to organise factory societies also Eight societies for the manufacture of mats and mattings and 2 societies for the manufacture of ropes are proposed to be organised during the Second Plan The question of starting a Coir Factory at Beypore is under the consideration of Government.

6 Co-operative Unions

125 A number of varieties of coir yarn are now being manufactured in this State. There are a number of primary societies engaged in the production of each variety of yarn For the development of the industry it is necessary to co-ordinate the work of the societies engaged in the production of each variety of yarn, and for this purpose unions of coir societies which are producing each variety of yarn and of thondu societies which supply them with husks will be organised

7 Departmental cost

126. Along with the development of the industry on co-operative lines it will be necessary to increase the supervisory staff and hence additional provision will have to be made for establishment costs.

CHAPTER XI

IV. TRANSPORT & COMMUNICATIONS

ROADS AND BRIDGES

1 Roads, Minor Bridges and Culverts

The Plan provides for the construction and improvement of 1147 miles of State and District roads and 95 small bridges and culverts The road programme for 1147 miles consists of special surfacing of 312 miles, improving and upgrading 639 miles of existing roads and construction of 196 miles of new roads The improvement works include easing of curves, increasing width of roads and increasing width of special surfacing The total plan provision is Rs 214 63 lakhs.

2 Village roads (Panchayats).

2. Improvements to 1000 miles of existing village roads and construction of 500 miles of new village roads are proposed to be taken up during the plan period The financial target is Rs 70·14 lakhs, exclusive of the 1/3 contribution which has to be made by local panchayat and the public together.

3. The programme for roads mentioned above also includes the elimination of level-crossing in important railway intersections in the State Where the road which crosses the railway in a national highway, the Government of India will provide both the approach road and the bridge required to eliminate the crossing Where the road concerned is a State or District road, the State or the Local Bodies as the case may be will construct the approach road and the Ministry of Railways the bridges required to eliminate the crossing The Road cum railway bridges also will be eliminated and separate road bridges built by the appropriate authority which is responsible for the road

3. Bridges

4. Bridges are proposed to be built on most of the roads where traffic has developed The programme in the plan provides for the construction of 84 major bridges at a total cost of Rs 193 21 lakhs A list is given below.

List of Bridge Schemes

Spill over Schemes

1 Meerankadavu Bridge (Completed)
2 Ittinayarkadavu
3 Constructing two bridges at Erattupettah (Completed).
4 Ithipuzha Bridge (Completed)
5 Kakkadasseri Bridge.
6 Mallappally Bridge (Completed).
7 Koratti Bridge
8 Cherai Bridge
9 Constructing a causeway over Bharathapuzha at Pattambi

10 Reconstructing Tirur Bridge at mile 26/3 of Tirur—Pooraparamba Road

11 Constructing culvert and bridges in Kuttiadi—Koroth road including improvements

12 Reconstructing weak culverts in Kasargode—Jalsoor Road.

13. Constructing submergible bridges and culverts across the unbridged crossings in Jalsoor Subramania Road

New Schemes

14. Constructing a bridge at Mukunnara Crossing
15. Bridge at Kollampuzha landing over Vamanapuram river
16. Bridge at Neerattupuram
17. Bridge at Kaippattoor.
18 Bridge at Ranni
19. Bridge at Muttar
20 Bridge at Nedumudi
21 Bridge at Pallathuruthy
22 Bridge at Kallukadavu
23 Bridge at Kunnathoor Crossing
24 Bridge at Muttathukadavu
25 Bridge at Konkerikadavu Crossing
26. Bridge at Chenganda Crossing
27 Bridge at Kottayathukadavu
28 Bridge at Mutholy Crossing
29 Bridge at Chalakkal
30 Bridge at Kalamboor Crossing
31 Bridge at Murinjapuzha Crossing
32 Bridge at Poothotta Crossing
33 Bridge at Kodimatha Crossing
34. Bridge at Kulathukadavu
35 Reconstructing Panamkutty Bridge
36 Reconstructing Thevara Bridge
37 Bridge at Cheruvallikadavu
38 Bridge at Vettikadavu
39 Bridge at Choondanthuruthu
40 Bridge at Neericode Crossing
41 Bridge at Thannipuzha Crossing
42. Overbridges in places of existing level crossings at Ernakulam North and South Railway Stations
43 Weak Bridges in Trichur District
44 Enamakkal Bridge
45 Kandassankadavu Bridge
46 Strengthening the Karimpuzha Bridge at mile 47/6 of Kozhikode—Nilambur—Gudalur road.
47. Constructing and widening culverts in Pattambi—Perintalmanna road
48 Strengthening the Kootilangadi Bridge at mile 411/5 of Madras—Kozhikode road

49 Widening the bridge at mile 403/6 of Madras—Kozhikode road
50 Widening the Bridge at mile 383/3 of Madras—Kozhikode road
51 Reconstructing the Bridge at 19/7 of Palghat—Shoranur road
52 Constructing the Bridge at mile 0/7 of Ottappalam—Thirunarayanapuram road
53 Constructing a Bridge at mile 22/4 Mulliakurissi—Pandicad road at Oravampuram ferry
54 Constructing a bridge across Karimpuzha river in Ariyur—Thirunarayanapuram—Ottappalam road
55 Reconstructing bridges and culverts of Mannarghat—Chinnathadagom road
56 Constructing a bridge over Padavedu river at Pazhanur on Alathur—Pazhanur road
57. Constructing a bridge over Chembra canal on Thiruvegapuram—Pallippuram road.
58 Constructing a bridge at Panamaram at 10/2 of Mananthoddy—Panamaram road.
59 Reconstructing the bridge at 24/8 of Sulthan Battery—Nulupuzha road
60 Reconstructing the bridges and culverts in Kozhikode—Balusseri-Tamarasseri road.
61 Reconstructing the bridge at 19/7 of Balusseri—Tamarasseri road
62 Constructing culverts and bridges in Kuttiyadi—Koroth road
63 Reconstructing the bridge at mile 1/1 of Manakavoo—Kannimparambu road
64 Constructing the bridge in Tirurakad—Anakayam road
65 Reconstructing the weak bridge at 26/4 of Kozhikode—Gudalur road
66 Constructing a bridge at Kanayankattu ferry
67 Constructing a bridge at Porakattu ferry
68 Reconstructing the bridge at site 1/3 of Viyithur to Poydama road
69 Reconstructing the bridge at site 5/4 of Viyithur to Poydama road
70 Reconstructing the bridge at 6 3 of Vellore—Padiotchal road
71. Reconstructing the bridge at 63/7 and 70/3 Balliapetty—Madan road
72 Reconstructing at 0/6 Kozhikode to Peruvayil road
73 Reconstructing the bridge at mile 2/8 of Perumbai—Padiotchal road
74 Construction of a bridge across Palayangadi river on Baliapatam—Madayi road
75. Reconstructing the bridge at mile 2/5 of Tellicherry—Anjarakandy road
76 Reconstructing the bridge at mile 3/6 of Cheruthayam—Mathamangalam road
77 Constructing the Mambram bridge at mile 6/8 of Chowa—Mambram road

78. Constructing a bridge across Kollicherrykadavu on Kolathus-Bedadka-Uttikolu road
79. Constructing two bridges at miles 8/3 and 11/3 of Kakkula Ullia-Dharmastala road
80. Constructing a bridge over Cherumpuzha river at mile 2/7 of Padiotchal Pulingunnu
81 Reconstructing the bridge at 14/8 of Taliparamba to Kottur road
82 Construction of a bridge at mile 5/2 of Badagara-Thiruvallur
83. Reconstructing the bridge at 2/1 of Kozhikode—Vayithiri—Gudalur road.
84. Constructing a bridge at Karimpatta—Meenangadi road

ROAD TRANSPORT

5 The provision proposed for Road Transport in the State's Second Five Year Plan was Rs 70 80 lakhs as indicated below.

Rehabilitation of existing service of Transport Department.	75 47 lakhs
Expansion of service.	82 03 lakhs
Total cost	157 50 lakhs
Share of Railways	(—) 86·70 ,,
Provision in the State's Plan	70 80 ,,

6 Formation of a Road Transport Corporation is a prerequisite to get the contribution by Railways It has been decided not to form a corporation for transport as it is not considered beneficial to the State The Planning Commission have agreed to include in the Plan the actual cost of the scheme during the years 1956-57 and 1957-58, which is estimated at Rs 66 50 lakhs The scheme will however be continued during the rest of the Plan period as a non-Plan item

TOURISM

7. Visitors from all over the world have praised the beauty of Kerala as second to none in India The only reason why the State is not attracting as many tourists as it should is the lack of modern facilities for accommodating tourists at and on the routes to beauty spots and places of interest It is considered that a major effort should be made in the Second Five Year Plan period to supply this need Such a step will, in addition to earning valuable foreign exchange, serve to rouse the interest of foreigners in the arts and crafts peculiar to the State and thereby promote their development.

8 The programme under Tourism is divided into three parts, namely—

Part I—Schemes fully financed by the Centre

Part II—Schemes financed by the State and the Centre on 50 · 50 basis

Part III—Schemes fully financed by the State.

9. The following schemes under Part I have been included in the programme of the Central Ministry of the Transport: —

	Rs lakhs
(1) Improvement of Rest House at Thekkady on the Periyar Lake .	0·50
(2) Improvements to Rest Houses, Ernakulam and Varkalai .	0·50
Total	1 00

10. In the State Plan a total provision of Rs 12 80 lakhs is made for schemes under Part II and Part III (i e Rs 2 80 lakhs being 50 per cent share of the State Government of the cost of schemes under Part II *plus* Rs 10 lakhs for schemes under Part III) Details of the schemes are given below ·

Name of Scheme

	Part II	Plan provision (Rs. lakhs)
1.	L I G. Rest House at Thekkady ..	1 5
2.	Extension to Mascot Hotel at Trivandrum	1 3
	Total	2 8
	Part III	
1	Circuit House, Kozhikode ..	1 00
2	Circuit House, Cannanore	1 00
3	Expansion of Rest House, Trichur	1 00
4	Boating facilities at Periyar	0 50
5.	Expansion of Rest House, Trivandrum	0 50
6	Tourist Hotel, Kovalam	1 00
7	Tourist Hostel, Ponmudi	1 50
8.	Rest House, Sultanbattery	0 50
9	Rest House, Guruvayoor	1 00
10.	Expansion of Rest House, Quilon ..	0 50
11	Rest House, Tellicherry	0 50
12	Expansion of Rest House, Munnar	0 50
13.	Expansion of Rest House, Alleppey .	0 50
	Total ..	10·00

CHAPTER XII

V. SOCIAL SERVICES.

I. EDUCATION

Kerala State can be proud of its achievements in the field of Education It has 12,000 Educational Institutions of various categories and has the highest percentage of literacy among the States in India But it cannot be said that its educational development has been well planned and that we have achieved quality along with quantity in the field of education Many of the schemes provided in the Second Five Year Plan are intended to improve the quality of education It provides for extension of Basic Education, Elementary Education, improvement of standard in College and University Education and Extension of facilities in Technical and Vocational Education In the field of Elementary Education, the policy of the Government is to incorporate the better features of Basic Education in the present system, so that a new pattern suitable to the needs and traditions of Kerala can be evolved All Training Schools will be converted into Basic type of schools Emphasis will be given to the vocational basis in Primary Education In the field of Secondary Education, the Secondary Education Commission has made proposals for bringing out greater variety and comprehensiveness and providing more comprehensive course which will include both general and vocational subjects The unilinear character of Secondary Education has resulted in the problem of unemployment Therefore it is desirable to have a system of Secondary Education which offers openings in different directions One of the problems facing the State is unemployment acute among the educated people But we cannot reverse our process overnight and cease to turn out large number of graduates No artificial embargo can be placed on the entry to University Education What is proposed to be done under the Second Five Year Plan is to divert the youth to more useful channels of education during the High School courses. Special attention will be devoted to the development of technical education in the State

2 The establishment of 18 Junior Technical Schools, 4 Engineering Colleges and 6 Polytechnics and the conversion of the existing High Schools into multi-purpose schools with diversified and technical course of study, are steps intended to achieve the object The supply of tools to every primary school and the construction of community centres attached to High Schools, will be helpful in creating a vocational bias in children.

3 Brief descriptions of schemes under "Education" are given below ·

II GENERAL EDUCATION

1 Revision of salary of Primary School Teachers

4 The scale of pay of the Primary School Teachers has been revised from Rs. 35-80 to Rs. 40-120 The benefit of the revision was extended to Private sector also. An amount of Rs 95 lakhs has been provided in the Plan to meet the additional expenditure

2. Revision of salary of Secondary School Tea

5. A sum of Rs 15 0 lakhs has been provided for this purpose The salary of the graduate teachers has been raised f Rs. 55-150 to Rs 80-165.

3 Provision of Mid-day Meal

6 The Scheme relating to the supply of mid-day meal was applicable to the former Cochin area, to the compulsory education area of Travancore and to certain specified areas of Malabar The Government have decided to extend the Scheme throughout the State. A provision of Rs. 40 lakhs has been included in the Plan. In 1957-58 the Scheme was extended to Kozhikode and Alleppey Revenue Districts

4. Hindi Teachers' Training

7. The Scheme envisages intensive training to Hindi Teachers after completely changing the present system of training A detailed scheme will be worked out in consultation with Hindi Advisory Board The cost of the scheme is Rs. 12 78 lakhs 600 teachers are proposed to be trained.

5 Revision of pay of Hindi Teachers

8 Part-time Hindi Teachers were being paid only an allowance of Rs 30 p m. in Departmental Schools and Rs 25 in Private Schools and they were having only less than 15 periods of work per week. The Government of India promised assistance for the appointment of at least one full-time Hindi teacher in every Secondary School. The Part-time Hindi teacher's pay has been revised as Rs. 30-2-42-3-60 from 1-4-1955 A sum of Rs 11·0 lakhs has been set apart to meet the difference in cost and for new posts that may be created during the Plan period Nearly 750 Full-time teachers are expected to be appointed during the Plan period.

6 Craft training for teachers

9 The Secondary Education Commission has stressed the importance of Craft teaching in all stages of school education. The success of the introduction of craft in schools depends on the availability of properly trained personnel. So a scheme for the training of teachers in craft is included in the Plan, by which it is expected that 260 teachers in service could be got trained during the Plan period The cost of the scheme is Rs. 0·86 lakh.

7 Audio-Visual Education.

10 Almost every Secondary School will be provided with Audio-visual equipment in the course of the Second Plan period Teachers have to be given some training for handling those equipments A short course of training is therefore proposed to be conducted. 250 teachers will be got trained during the Plan period The scheme also envisages the organisation of

two Audio-visual mobile units and a Film library. The film library could be made use of by schools and institutions possessing audio-visual equipment. The total cost of the scheme is Rs. 5 65 lakhs

8 Refresher Courses and seminars for teachers and teachnical personnel

11 Refresher course for teachers and annual seminars at all levels are envisaged under this scheme. The expenditure comes to Rs 2 95 lakhs

9. Medical Inspection.

12 A scheme has been worked out for the medical inspection of all school going children in Standards I to V. A provision of 5.70 lakhs has been made for this purpose. The Scheme will come into force immediately in 200 selected centres in the State

10. National Cadet Corps

13 Hundred troops are proposed to be started during the Plan period. The cost of the scheme is Rs. 12 86 lakhs

11. Auxiliary Cadet Corps

14 The target of the scheme is 210 troops A provision of Rs 3.79 lakhs has been included in the plan

12 Scouting and Guiding.

15 In order to encourage the scout movement in the State, it is proposed to enhance the grant to the Bharat Scouts and Guides Association The question of encouraging the activities of the State Youth Welfare Board and Youth Welfare Committee by giving them financial assistance, will also be considered. The cost of the scheme is Rs 2 37 lakhs. This is a centrally sponsored scheme, the Central share being Rs 1 19 lakhs The State's share of Rs 1 18 lakhs has been included in the plan

13 Grants to Dance, Drama and Music Associations

16 There are many cultural institutions in the State run by private agencies who do not receive any financial assistance In order to encourage such institutions, it is proposed to pay grant to them in consultation with the State Sangeetha Natak Academy, according to merit. The cost of the scheme is Rs. 4 00 lakhs.

14 Sports and Games Associations.

17. The object of the Scheme is to give grants to important sports and Games Associations and Clubs on the recommendation of the Kerala Sports Council The cost of the Scheme is Rs. 5 74 lakhs. This is a centrally sponsored scheme, the Central share being Rs. 2·87 lakhs The States share of Rs. 2 87 lakhs is included in the plan

15 Production of Children's literature.

18. The scheme is to add more books to the series of Children's Literature produced during the First Plan period. 100 books are proposed to be produced and added to the series during the Second Plan period. Ten thousand copies of each book will be printed and distributed free to schools and libraries with Children's sections The work will be attended to by the Kerala Sahithya Academy. A sum of Rs 1.42 lakhs is included for the purpose.

16 Educational Publications, Magazines and Bulletins

19. An Educational quarterly and periodical bulletins dealing with subjects of academic importance in education are proposed to be published and distributed free. The bulletins will be published in regional languages The cost of the scheme is Rs. 0 47 lakh. This is a centrally sponsored scheme, the Central share being Rs. 0 23 lakh The State's share of Rs 0.24 lakh has been included in the plan

17 Sangeetha Nataka Academy.

20 The proposal is to put up a model regional theatre. Provision has been included for the activities of the Sangeetha Nataka Academy also. The provision for the scheme is Rs. 4 00 lakhs.

18. Training of Guidance Officers.

21 It is proposed to start a State Bureau of Educational and Vocational Guidance to impart training to Guidance Officers. The proposal is to train as many guidance officers as possible and to post at least one to each Secondary School. These guidance officers will render necessary assistance to parents and students to choose their vocation according to aptitudes The target fixed is 150 guidance officers The cost of the scheme is Rs. 0 62 lakh

19. Post-Graduate Basic Training College

22 One Post-Graduate Basic Training College has been started at Ramavarmapuram in Trichur District during 1956-57, to provide training to 50 persons with the Diploma of B. T. When sufficient accommodation is made available the strength will be raised to 80 The cost of the scheme is Rs. 4 89 lakhs.

20. State Central Library

23 The Trivandrum Public Library will be converted into a State Central Library. An amount of Rs. 6.93 lakhs has been provided for the purpose.

21. S. S. T Academy Type of Schools.

24. It is proposed to start 4 Academies of Music to provide facilities for teaching music of the standard of the Swathi Thirunal Music Academy, Trivandrum. These will provide for

vocal and instrumental music. Courses are Ganabhushana Diploma and Vidwan course in Veena. The cost of the scheme is Rs 1 57 lakhs

22 Drawing and Painting School.

25 One Drawing and Painting school has been started at Mavelikara during 1956-57 Instruction is imparted in drawing, painting and modelling. A sum of Rs 1 12 lakhs has been provided for the school.

23 Text-Book publication (site and building.)

26 The scheme is to construct permanent stores and offices at Trivandrum, Thiruvella, Ernakulam and Trichur The cost of the scheme is Rs 3 11 lakhs.

24. Educational Bureau and Research Section.

27. It is proposed to start a Bureau of Education with a Library and attach it to the office of the Director of Public Instruction A Research Section with two research assistants will be attached to the Bureau A sum of Rs. 2·49 lakhs is included in the Plan for the purpose.

25 School of Dancing.

28 One school is proposed to be started to give instruction in dancing. The persons trained can be appointed as teachers of Dancing in schools. The cost of the scheme is Rs. 1·98 lakhs

26. S S T. Academy of Music—additional facilities

29. It is proposed to construct an auditorium in the Trivandrum Music Academy. An amount of Rs. 0 47 lakh has been provided in the Plan.

27 Nursery Training School.

30 One Nursery Training school was started at Alleppey during 1956-57 The aim is to train teachers for the Nursery Schools proposed to be started during the Plan period 30 seats for candidates with S S L C and T T C are provided An amount of Rs 0 30 lakh has been provided

28 Nursery Schools

31 The scheme envisages the starting of 200 Nursery Schools at a cost of Rs 5,000 each The total cost is Rs 10 lakhs It is also intended to encourage private agencies and Panchayats to start Nursery Schools.

29 Stadia

32 At present there is a stadium in Trivandrum alone It is proposed to have one stadium in each of the remaining Districts This is a centrally sponsored scheme, the Central share being Rs 3 50 lakhs The State's share of Rs 3 50 lakhs has been included in the Plan.

30 Provision of facilities in Primaryand Basic Schools, Buildings, site, etc.

33 A provision of Rs 90·00 lakhs has been made for constru · cting buildings required for Primary Schools and Basic schools (junior and senior) and also for acquisition of new sites in compulsory areas where the lease of the existing sites expires during the Plan period Wells in departmental schools will also be provided

Primary New Schools—Departmental		27
do	Private	109
Buildings, Primary Schools-non-compulsory areas	New	38
	Additional	55
	Renovation	130
do compulsory areas	New	200
	Additional	36
	Renovation	68
Junior Basic Schools	Departmental	110
do	Private	206
Senioi Basic Schools	Departmental	46
do.	Private	78

31. Multi-purpose Schools—facilities for teaching science and improvement of libraries

34 The amount provided in the Plan is Rs 85 lakhs for the following:--

(a) *Multi-purpose schools without technical courses.*

This scheme is for converting three-year High Schools into 4 year higher secondary or Multi-purpose schools with humanities, sciences, agriculture, commerce, home science and fine arts courses in limited numbers All such schools will however have humanities and science courses in common

Physical Target	Departmental Schools	23
	Private Schools	23

The private managements will be paid 60%or whatever assistance is received from the Centre on this under non-recurring expenditure.

(b) *To improve facilities for teaching science:*

According to the revised syllabus teaching of electives in the three-year high schools require practical work in science. The laboratories have to be properly equipped for the purpose The scheme is to supply equipment and apparatus for departmental schools and to render financial assistance to private schools to improve such facilities

Physical Target	Departmental schools	73
	Private Schools	184

(c) *Improvement of libraries*

The Departmental and private high school libraries have to be improved The private schools will be paid a grant equal to the contribution from the Centre

Physical target	Departmental Schools	74
	Private Schools	152

(d) *Improvement of libraries of multipurpose Schools*

The libraries of departmental and private multi-purpose schools are to be improved The private schools will be paid grants for the purpose

Physical target	Departmental Schools	22
	Private Schools	23

32 Opening of Secondary Schools.

35 The Scheme provides for opening 100 new high schools 26 departmental and 74 private. An amount of Rs. 28 0 lakhs has been provided in the Plan for the purpose

33. Opening of Middle Schools

36 With the introduction of free education in Middle school classes, there is bound to be a large increase in the number of pupils seeking admission in middle schools A provision of Rs 26 00 lakhs has been made for opening 27 departmental and 140 private middle schools

34 Middle School buildings.

37 A provision of Rs 14 0 lakhs has been made in the Plan for providing buildings for the middle schools The Physical target has been tentatively fixed as follows:

	Schools
New	44
Additional	148
Renovation	58

35 High School buildings.

38 Many of the high schools are not having adequate accommodation An amount of Rs 28 0 lakhs has been provided in the Plan for buildings

Physical Target	Renovation	50 buildings
	Addl Accommodation	96 ,,

36 Teaching of crafts in schools

39 The scheme provides for the teaching of crafts in upper Primary and Secondary Schools An amount of Rs 33 72 lakhs has been made in the Plan The amount is required for equipment, craft sheds and staff.

37 Higher Secondary Schools with Technical courses

40 In the Plan, provision for 11 Departmental schools is made The multi-purpose schools (Higher secondary schools) with technical courses will be providing instruction in purely technical subjects like elements of electricity and Mechanical, Civil and radio engineering, textile technology, printing and dyeing (textiles) etc The provision made in the Plan is Rs 51 44 lakhs, excluding the central share of Rs 5 58 lakhs

33 Quarters for Teachers.

41 An amount of Rs 18 88 lakhs has been provided in the Plan for providing 200 blocks of quarters to the teachers The quarters will be provided in (1) Basic Training Schools and (2) in places where it is difficult to get residential accommodation such as High Ranges and out-of-the-way places

39 Special Schools

42 This scheme provides for starting of schools for the handicapped the Deaf, Dumb and the Blind A provision of Rs 7 16 lakhs has been made in the Plan with a physical target of 5 schools

40 Libraries and Reading Rooms

43 A provision of Rs 12 62 lakhs has been made in the Plan for starting 20 distributing libraries.

41 Basic Training Schools

44 The scheme is to convert the existing training schools into the Basic Type and for providing training in Basic education for both teachers and non-teachers possessing literacy and training qualification An amount of Rs 15 28 lakhs has been provided in the Plan for this Scheme

42 Residential Schools.

45 Three good residential multi-purpose higher secondary schools will be started in Kerala The financial target of the scheme is Rs 15 lakhs

43. Provision of buildings consequent on the abolition of shift system

46. Additional accommodation has to be provided consequent on the abolition of the Shift System in Primary Schools and Basic Schools in the former Travancore-Cochin area One class room 20′ × 20′ will cost approximately Rs 2,800 An amount of Rs 30 lakhs has been provided in the Plan for constructing 1070 additional class rooms

44. Printing Press for text books

47 A Government Press will be established for Printing Text Books, so that a better and cheaper set of books may be made available to the children The production of text books has been nationalised in this State A provision for Rs. 5 lakhs has been made for this purpose The Press will be established at Shoranur

COLLEGIATE EDUCATION

45 Advanced Research and Post Graduate studies in Maharaja's College Ernakulam.

48 It is proposed to provide research in Chemistry and to start post-graduate course in Physics and Botany Provision is also made for post-graduate studies in History and languages The provision for the scheme is Rs. 10 5 lakhs

46 Physical Education Colleges

49 The scheme is to provide College and Hostel buildings and play grounds for the Physical Education College at Trivandrum and to provide one more Physical Education College at Kozhikode. The cost of the Scheme is Rs. 4 90 lakhs

47 Hostel accommodation—Maharaja's College, Ernakulam

50 This scheme is to provide additional hostel accommodation for men and women students A provision of Rs. 3 80 lakhs has been made in the Plan

48 Degree Courses in Sciences—Government College, Chittur

51 Intermediate courses in Science were started before the Second Five-Year Plan A provision of Rs 4 75 lakhs has been made for degree courses in Science in the Second Plan The courses were introduced from 1956-57

49 Additional facilities—Government Training College, Trichur, and Training College Hostel

52 Additional accommodation has to be made to the Government Training College, Trichur A sum of Rs. 1 99 lakhs has been provided in the Plan for the purpose

50 Government College, Chittur—Hostel

53 A provision of Rs 1 66 lakhs has been made for constructing hostel buildings for men and women

51 Victoria College, Palghat—Post-Graduate Course.

54. This scheme is to provide post-graduate course in the Victoria College, Palghat A sum of Rs 10 00 lakhs has been included for the purpose.

52 Government Brennen College, Tellicherry

55 New Buildings have to be constructed for the college Degree courses in Science have to be introduced. An amount of Rs 10 0 lakhs has been provided in the Plan.

53 Government Training College, Tellicherry

56 A new Training College has been started at Tellicherry. Provision made in the Plan is Rs 3 00 lakhs

54 Government Colleges

57 It is proposed to start one Government College in each of the three districts of Palghat, Kozhikode and Cannanore A sum of Rs 15 0 lakhs is provided for the purpose.

55. University

58 The total cost of University schemes proposed under the Second Five-Year Plan amounts to Rs 79 60 lakhs as detailed below : —

	Schemes.	Total cost.
Humanities		Rs
1.	Post-graduate Course in the Department of Politics	1,13,800
2.	Post-graduate Course in the Department of Psychology	1,18,800
3	M. Ed. Course	1,83,300
4	University Library	10,88,500
Department of Science		
5.	Expansion of the Statistics Department of the Central Research Institute	3,50,100
6.	Expansion of the Applied Chemistry Department	4,16,300
7.	Department of Oceanography	13,06,200
New Schemes to be approved by the State Government and then by the University Grants Commission		
8	Post-graduate courses in Bio-chemistry, Physical Chemistry and Inorganic Chemistry	3,79,600
9.	Post-graduate Department of Zoology	3,74,800
10	Post-graduate Department of Geology	7,94,800
11	Post-graduate Department of Botany	11,94,800
12	Research and Post-graduate Department of Malayalam	1,24,800
13.	Post-graduate Department of Indian History	1,24,800
14	Post-graduate Department in Indian Philosophy	1,24 800
15	Building for items 12, 13, and 14 above	2,65,000
16.	Construction of hostels	10,00,000
	Total	79,60,400

59 A matching contribution of Rs 14 25 lakhs is included in the Plan as State's Share of the cost The balance will be met by the University Grants Commission and the University.

TECHNICAL EDUCATION

56 Polytechnic

60 A Central Polytechnic will be established at Trivandrum A Polytechnic in the Public Sector has also been sanctioned for this State which will be located at Cannanore In view of the industrial importance of the surrounding area, it is also proposed to start Textile Technology as a course in that Polytechnic A Polytechnic has been started at Quilon by Sree Narayana Dharma Paripalana Yogam in the Private Sector In 1958-59, 3 more Polytechnics will be established, one by the Nair Service Society at Pandalam, another at Alleppey by Carner Institute and the third at Thriprayar by Sri Rama College Committee.

61 It is also proposed to up-grade and expand the following Polytechnics:—

1 Maharaja's Technological Institute,
2 Government Polytechnic, Kalamassery,
3. Polytechnic, Kozhikode

These are Centrally sponsored schemes

62 The Financial targets of the schemes relating to Polytechnics are detailed below

		(Rs in lakhs)
1	Central Polytechnic and Polytechnics ..	22 65
2	Grant-in-aid to Polytechnics in Quilon, Pandalam Triprayar and Alleppey	15·00
3	Maharaja's Technological Institute, Trichur	3 92
4	Government Polytechnic, Kalamassery ·	4 00
5	Polytechnic, Kozhikode	1 40
	Total	46 97

57 Junior Technical Schools

63 Eighteen Junior Technical Schools providing Technical Courses will be established in the State The course will be complete in itself In addition to technical knowledge, a general academic background will be provided. A provision of Rs 112 lakhs has been made for the purpose. In accordance with the advice given by the Government of India, steps have been taken for the starting of some of these schools in 1958-59

58 Engineering Colleges

64. The Second Engineering College will be established at Trichur with the assistance of the Government of India. The students for pre-professional course have been selected in 1957-58 The college will start functioning in June 1958 at an ideal site of 65 acres at Ramavaramapuram in Trichur District

In addition to this, two Engineering Colleges will be established in the private sector. They will be opened in Quilon and Palghat/or Cannanore. Besides the normal expansion of the Engineering College at Trivandrum, i e , increasing the in-take from 100 to 210, 3 Post-Graduate Courses will be started one in Irrigation Hydraulics and Flood Control, another in Electrical Machine Design and the third in Structural Engineering. As the present location of the Engineering College is unsuitable for any further expansion, it has been decided to shift it to Kulathur which is at a distance of about 8 miles from Trivandrum

65. The financial targets of schemes relating to Engineering Colleges are detailed below·

		(Rs. in lakhs)
1	Engineering College at Trichur	30 00
2	Expansion of Engineering College at Trivandrum	4 00
3	Expansion of Training capacity of Engineering College, Trivandrum	5 00
4	Grant-in-aid to two Engineering Colleges to be opened in Quilon & Palghat/ Cannanore .	14 00
5.	Post-graduate course in Engineering .	3 00
	Total	56 00

TECHNICAL EDUCATION—MISCELLANEOUS SCHEMES

59 Kerala Polytechnic, Kozhikode

66 A scheme for the expansion of the Institution is under consideration The strength in the following Diploma courses is proposed to be increased to 120, i e , 60 in Civil Engineering, 30 in Mechanical Engineering and 30 in Electrical Engineering in addition to the present strength. The cost of the scheme is Rs. 4 47 lakhs

60 Industrial School, Cannanore.

67. The School has started functioning only very recently. Certificate courses in various subjects are conducted in this institution The scheme is for conducting certificate courses in 12 subjects. Instruction is being imparted in 6 subjects. They are: (i) Auto Servicing and Maintenance, (ii) Electric Wiring, (iii) Cabinet Making, (iv) Light Metal Casting, (v) Electric & Gas Welding, & (vi) Foundry Practice.

68 It is proposed to start the following courses also.—

1 Radio Servicing,
2. Printing,
3. Toy Making;
4 Tailoring & Embroidery;
5 Plumbing & Sanitary Engineering; &
6 General Mechanics.

A sum of Rs 14.48 lakhs has been provided in the Plan,

61. Occupational Institute.

69. During the First Five Year Plan there are proposals to organise three Occupational Institutes at Trichur, Trivandrum and Nagercoil Accordingly an Institute was formed at Trichur in 1953 by the amalgamation of the School of Arts, Trichur and the Girls' Industrial School, Trichur The scheme in respect of the Occupational Institute in the Second Five Year Plan is a continuation of the First Five Year Plan

70. The Technical Education Committee appointed by Government have in their report recommended that immediate steps should be taken to improve the facilities for instruction and demonstration in arts, crafts and handicrafts in the State It was therefore proposed to improve the instructional facilities in the Government Occupational Institute, Trichur. Structural alterations of the existing buildings of this Institute are necessary and modern equipments are also to be got down With that object in view, a provision of Rs 3 27 lakhs is made during the Second Five Year Plan period

2 MEDICAL

71. The Second Five Year Plan aims among other things at developing the existing medical service into a more efficient machinery to meet the requirements of a growing and enlightened population The emphasis is not so much on multiplying the number of institutions, as on consolidation, since the field will be served by private practitioners, as also by other systems of medicine. The development schemes are as follows —

1 Starting of new Dispensaries

72 In order to cater to the growing public demand a limited increase in the number of medical institutions also is envisaged The present policy of the Government is to start new dispensaries only in places where the local public offer site, buildings and furniture free The idea is to open 50 dispensaries in the Plan period The cost of the scheme is Rs 16 52 lakhs

2 Additional Wards and better Equipments to existing Dispensaries

73 The intention of the scheme is to open additional Wards in Dispensaries where the local public is prepared to provide building with furniture and site wherever necessary It is proposed to give this type of improvements to 121 dispensaries. The financial target of the scheme is Rs 16 78 lakhs

3 Installation of Deep X-ray

74. The X-ray Department of the Medical College, Trivandrum has to be expanded with the provision of a Cobalt X-ray Therapy Unit since this facility is not available in this State. The financial Target proposed is Rs. 7 lakhs.

4. Improvements to major Hospitals.

75. The object of the scheme is to increase the bed strength and to provide better equipments and facilities in eight major Hospitals of the State The cost of the Scheme is Rs 55·50 lakhs.

5. Construction of Quarters.

76 The proposal is to construct quarters for Medical Officers, Nurses, Midwives and Compounders in 57 Medical Institutions at a cost of Rs 21 40 lakhs.

6 Leprosy Hospitals and Clinics

77 The proposal is to increase the bed strength of the Leprosy Hospitals by 820 and to establish a leprosy clinic at Chevayur in Kozhikode The Financial target of the scheme is Rs 29 00 lakhs. (The scheme is being revised).

7. T B Hospitals and Clinics

78 (a) *Increase in Bed strength in Tuberculosis Isolation Wards* —The present bed strength in isolation wards is woefully insufficient to meet the demand Hence it is proposed to increase the bed strength in the isolation wards by 630 The financial target of the scheme is Rs 21 88 lakhs. This is a Centrally sponsored scheme, the Central share being Rs 7 87 lakhs.

(b) *Tuberculosis Clinics.*—The physical target of the scheme is 11 clinics and the financial target Rs. 22 50 lakhs

(c) *Increase of bed-strength in T B Hospitals.*—The object of the Scheme is to increase the bed strength by 804 in the existing T B hospitals of the State including the T B hospital at Pariaram in Cannanore District taken over by Government The cost of the Scheme is Rs 44 68 lakhs.

8 Improvement to Taluk Headquarters Hospital.

79. Most of the Taluk Headquarters Hospitals are overcrowded The public are not able to get all kinds of medical aid at these centres It is desirable that these hospitals should each have at least 50 beds with medical, surgical and maternity Sections and an up-to-date operation theatre The provision of these facilities will not only improve the standard of treatment but also enable their functioning as secondary Centres for serious cases sent by primary health centres to be opened in Community Development and N E S Blocks This step will also reduce the conjestion in the major Hospitals. The intention is to extend this benefits to 15 medical institutions of the State. The cost of the scheme is Rs. 28 90 lakhs.

9 Subsidiary Centres for Leprosy.

80. In order to fight out leprosy, the Government of India have proposed the establishment of a number of pilot projects for control of leprosy by the application of intensive mass treatment method in certain areas which are endemic in leprosy, and simultaneously with mass treatment to undertake health

education on the infactivity of the disease and its prevention It is proposed to open 11 such centres when there is high incidence of the disease. Notwithstanding this, the scale of assistance being given to the Missionaries and Private Bodies will be increased The cost of the Scheme is Rs. 23 05 lakhs. (This scheme is being revised along with the scheme for Leprosy hospitals and clinics referred to earlier)

10 Improvement to Mental Hospital, Kozhikode

81. The Mental Hospital at Kozhikode requires much improvement An amount of Rs. 5'00 lakhs has been provided for this

11 Opening of Dental Clinics

82. Five Dental Clinics will be opened in the District Head Quarters Hospitals of the State. The cost of the Scheme is Rs 3 00 lakhs

12. Opening of V D Clinics.

83 In order to treat venereal cases it has been decided to open 5 V D Clinics in the District Hospitals of the State. The financial target of the scheme is Rs 5'00 lakhs.

13 Provincialisation of Doctors in Local Fund and Municipal Institutions

84. The Scheme was originally intended to make a beginning with the conversion of Local Fund dispensaries into Government dispensaries In view of a major decision taken separately, viz., to take over various utility services run by the District Board, Malabar, all local Fund Hospitals in the area have been converted into Government institutions The limited scheme of Rs. 0 35 lakh, has therefore been abandoned The cost of the conversion is being met from the advisory budget

14 Medical Colleges

(1) *Medical College, Trivandrum*

85. The scheme was started in the First Plan period. The scheme consisted of the construction of a College to admit 80 students each year for the M B. B S Course, a Nurses' School to admit 40 students a year, quarters and hostels and a Medical College Hostel In the Second Five Year Plan, the raising of admission to 100 a year, the strengthening of the staff of the College and some additional constructions have been included

(2) *Medical College, Kozhikode*

86. As the Medical College, Trivandrum is not sufficient to cater to the needs of the people of Kerala, another medical college at Kozhikode has been started from the 2nd year of the Plan. The District Hospital at Kozhikode will also be suitably expanded to serve the Medical College.

87. A provision of Rs. 41'49 lakhs is included in the Plan for the schemes relating to Medical Colleges at Trivandrum and Kozhikode. These are centrally sponsored, the total Central share being Rs. 43'41 lakhs.

15 Integration of Public Health with Basic Courses in Nursing

88 The object of the Scheme is to include in the Curriculam of Nurses subjects relating to Public Health also. Twelve additional students will be admitted. A stipend of Rs 38 per mensem in addition to Rs. 30 per annum as uniform allowance will be given to the candidates The financial target of the scheme is Rs. 1 78 lakhs.

16. Post-graduate training in Public Health

89. The development of primary and secondary health units is very important in providing broad-based health services to the Community A progressive spread of these institutions in this State is going on to meet the health needs of the rural population. In the new Curriculum of Medical Education, much emphasis is laid on the importance of preventive and social aspects of medicine and rural health In order to ensure this, the following steps are proposed:—

(1) Strengthening of the Preventive and Social Medicine department in Medical College

(2) The provision of urban and rural health units.

(3) A definite period of internship by undergraduates in the health units

90 It has been found necessary to give the large number of doctors who are alredy in service adequate knowledge and training in these aspects of medicine The usual courses of training like Diplomas in Public Health, M P H etc, take up considerable time and are not available in all institutions Therefore short term courses of three months' duration are the only solution The department of social and preventive medicine in this Trivandrum Medical College has been developed to meet the above needs and the scheme for training the medical personnel in Public Health is proposed to be taken up from 1958-59 onwards. The number of persons that will be taken up for the course is eight and the number of courses that could be conducted in a year is two It is estimated that 48 persons will be benefited by this Scheme

91. The Plan provision for the scheme is Rs. 3·20 lakhs for 1958-61. This is a Centrally sponsored scheme, the Central share is 50% of the total expenditure

17. Laboratory Technician's Training Scheme.

92. There is acute need for providing facilities for training large numbers of medical laboratory technicians to assist medical personnel. At present medical personnel with higher training have of necessity to carry out several functions which may suitably be left to technicians

93. The training of medical laboratory technicians is a full-time one-year course commencing from 1958-59 The number of candidates to be given training in a year is 15. The training will be imparted by the teaching staff in the departments of Pathology, Bacteriology, Bio-chemistry and Preventive Medicine.

94. The financial commitments involved are the provision of stipend to the candidates during the period of their training at Rs. 50 each per mensem and provision of funds for purchase of equipments, chemicals and books for the practical training The Plan provision is Rs 0·53 lakh.

18 Dental College

95. This State has no facilities for imparting dental education even though there are two institutions for modern medical education and a number of institutions for indigenous systems of medical education It is proposed to start a 4 year B D S course by using the facilities available in the Medical College, Trivandrum and by providing additional space, staff the equipments The initial admission will be about 20 for the degree course This is a centrally sponsored scheme The State's share of Rs, 2 65 lakhs has been included in the Plan

19 Establishment of a Paediatric Centre in the Medical College

96 The existing provisions for teaching of paediatrics in the Medical College, Trivandrum are not adequate The Central Government have approved a scheme for the establishment of a paediatric Centre in the Medical College Teaching hospital from 1957-58. The main features of the scheme are the establishment of a model children's ward with a minimum of 40 beds Thi Centre will provide facilities for paediatric teaching of medical students The Medical College Health Unit will provide the necessary facilities for field service For the implementation of the scheme, provision is required for—

(1) additional accommodation,

(2) equipment, and

(3) staff for the hospital unit

The scheme is estimated to cost Rs 9,18,000 for 1958-61. This is a Centrally sponsored scheme and the Central Government will provide assistance for the scheme by sharing the expenditure—non-recurring 75% and recurring on a sliding scale of 80%, 70%, 50%, 30% and 20% from year to year The State's share of Rs. 3·52 lakhs is included in the Plan

20 Establishment of Social and Preventive Medicine Department.

97 Importance of Preventive Medicine in the Curriculum of studies for under-graduate medical course has not been sufficiently recognised and given adequate attention until recently If health services are to be developed in the rural areas, it is essential that the doctors who will be manning the services, should have adequate knowledge of not only curative methods but also problems connected with community health It was hence felt essential by the Indian Medical Council and the Ministry of Health that a course in social medicine should also

be instituted in order that the medical students get a sound footing and adequate experience in public health The department should have whole time staff and adequate equipments Such a department has been organised in the Medical College Trivandrum

98 This is a Centrally sponsored scheme The State's share of Rs. 0 85 lakh is included in the Plan

21. Starting of Children s Home for Leprosy.

99 The object of the Scheme is to start a Centre to look after the Children of Leper patients of this State The Swedish Section of the International "Save the Children" Union have agreed to give financial assistance for the scheme It is proposed to open a Centre at Nooranad A provision of Rs 1 lakh is included in the Plan for this Scheme

22 Starting of Nurses' Training Centre at Kozhikode.

100. A school for Nurses' Training was started in a building attached to the Headquarters Hospital Kozhikode The school started functioning from 1957-58 with 25 students As the present building is not sufficient, it is proposed to acquire a separate building for the purpose The financial target of the scheme is Rs 2 50 lakhs

23 Training of Refractionists and Opticians

101 In order to eradicate the numerous mal-practices and irregularities in the supply of optical glasses by unqualified persons, the number of qualified ophthalmologists has to be increased. There will also be considerable scope for the gainful employment of trained opticians, in hospitals. It is not intended to allow trained opticians to work as auxiliary medical personnel but under the supervision of doctors

102 The scheme envisages training of about 10 to 15 opticians every year in the Government Opthalmic Hospital, Trivandrum. The length of the course will be two years This is a Centrally Sponsored scheme. The State's share of Rs. 1·30 lakhs is included in the Plan

103 The provision of Rs 1·30 lakhs for the plan period is intended for meeting the cost of accommodation (one dark room, one refraction room, one lecture hall and one students' common room), equipments, chemicals, glass-ware required for the training of students and for the payment of T A. and deputation allowance for the Medical Officers.

24 Training of Laboratory Assistants.

104 It is proposed to give training for 15 candidates at a time in order to provide qualified Laboratory Assistants. The duration of the course is 6 months. A provision of Rs 0·90 lakh is included in the Plan.

25 Training of Teachers for the Medical Colleges.

105 There is a dearth of candidates satisfying the qualification and experience prescribed by the Indian Medical Council for appointment especially as pre-clinical teachers in the Medical Colleges. The Central Directorate of Health Services has pointed out that there is no proper second line of teachers in non-clinical subjects like Pathology, Physiology, Anatomy, Pharmacology, Bacteriology etc in most Colleges The Directorate has also stressed the necessity for instituting special scholarships for advanced training in those subjects with a view to meet the staff requirements of the Colleges in the State.

106 Fourteen post-graduate trained personnel in various subjects are immediately required for the Medical College, Trivandrum in non-clinical Departments Besides this about ten medical graduates will have to be got trained for one year in the Medical Colleges in the respective subjects for eventual appointment as lecturers The duration of the training will be two years

107. The financial implications of the above scheme are estimated to Rs 1 50 lakhs for the period 1958-61, for payment of deputation, salary, training, allowance, fees, to and fro T. A. etc, to the candidates.

26. Construction of Isolation Blocks attached to Medical College Hospital.

108. In order to construct isolation blocks in the Medical College Campus, a sum of Rs. 1·00 lakh is provided in the Plan

3 PUBLIC HEALTH

109. The Public Health Department had a very limited programme in the First Five Year Plan In the Second Five Year Plan following schemes are proposed to be taken up :—

1 Primary Health Units

110 Under this head there will be 90 Primary Health Units with a financial target of Rs 56·73 lakhs These Centres will look after both preventive and curative work.

2. Secondary Health Units.

111. Certain Government Hospitals at Taluk Headquarters will be converted into Secondary Health Centres in the Plan period. The cost of the scheme is Rs. 16 95 lakhs.

3 Maternity Homes.

112. It is proposed to organise 18 Maternity Homes at Taluk Headquarters with 20 beds each. The cost of the scheme is Rs. 17·00 lakhs

4. Maternity and Child Health Centres.

113. The object of the scheme is to provide Maternity and Child Health Centres in every village. The physical target of the scheme is 320 Maternity and Child Health Centres and financial target is Rs. 28·67 lakhs.

5. Family Planning.

114. An innovation is being made in introducing a scheme for advising and aiding in family planning in the State. 70 Family Planning Centres are proposed to be started in various parts of the State at a total cost of Rs 9 00 lakhs. This is a Centrally sponsored scheme, the central share being Rs. 4·50 lakhs approximately.

6 School Medical Inspection

115. A sum of Rs. 0 50 lakh is proposed for this scheme

7. Environmental Hygiene.

116 The proposal is to provide 3500 latrine slabs for distribution to bona fide users at subsidised rates. The cost of the scheme will be Rs. 0 75 lakh.

8 Health Education.

117. In Travancore-Cochin area, there is a Health Education Bureau attached to the Department of Health Services, the staff of which consists of one Health Education Officer and one Assistant Health Education Officer with a van and Cinema Equipment and its operating staff The intention of the scheme is to start one Health Education team, in the Malabar area. The financial target of the scheme is Rs 1·50 lakhs.

9 Organisation of Women Medical Officers for M C H Work

118. There will be 4 District Maternity and Child Health Organisations to supervise the M C H Centres and Maternity Homes The cost of the scheme is Rs 3 23 lakhs

10 Registration of Births and Deaths.

119 The standard of reporting of births and deaths in the State requires drastic improvement The responsibility for this is being laid on the Public Health Department In order to achieve this a sum of Rs. 10 21 lakhs is allotted for the scheme in the Plan.

11 Training Scheme for Public Health Department.

120. As no programme for improving the standard of Public Health will be successful without sufficient trained personnel it has been decided to train 452 Midwives, and 50 Family Planning Health Visitors ; to impart training to 4 Lady Doctors in D. M. and C W Course , to give refresher course for 250 Midwives ; and training for general health work for 77 Health Visitors· The cost of the scheme is Rs 6·60 lakhs.

12. National Malaria Eradication

121. The object of the scheme is to eradicate Malarial diseases. The scheme is proposed to be taken up from the 3rd year of the Plan period During the first 2 years of the Plan National

Malaria Control programme was in operation. D. D T. spraying and supply of pills in particular areas were the main activities of this scheme As suggested by the Government of India it has been decided to switch over to Malaria Eradication Programme from 1958-59 Under this programme it is proposed to carry out intensive malaria programme in both endemic and hypoendemic areas. At present there are Control Units at Trivandrum, Kozhikode and Trichur One more control unit will be opened at Palghat It is also proposed to establish 9 hypoendemic units, one in each District of the State

13 National Filaria Control

122 Two filariasis survey units and 10 control units are proposed for the Second Plan period

123 The total Plan provision for the programme for Malaria Eradication and Filaria Control is Rs 72 40 lakhs.

14. Public Health Administrative staff

124 In view of the increase of work consequent on the implementation of Plan programmes, it has become necessary to increase the staff in the office of the Director of Health Services and Assistant Director of Health Services The financial target is Rs. 1 85 lakhs

15 B C. G Vaccination

125 The activity is proposed to be intensified and continued during the 2nd Plan period There are at present 4 teams attached to this scheme not fully staffed A staff consisting of one Assistant Director of Public Health ; team leaders, Statistical Clerk, Health Education Officer, Technicians, team clerks, Accountants Typists, Drivers, Driver-cum-mechanic, Cleaners Cinema Operator, Artists, Makers, Peons etc , is required to carry out the scheme The cost of the scheme is Rs 8 71 lakhs This is a Centrally sponsored scheme, the Central share being Rs 0 50 lakh.

4 PUBLIC HEALTH LABORATORY

126 At present the Public Health Laboratory at Trivandrum caters to the needs of the whole State in the matter of Prophylactic vaccine—Vaccine lymph (against Small-pox), Anti-Rabic, T A.B. and Cholera vaccines The Diagnostic services, although theoretically catering for the whole State, really serve mainly the Hospitals and practitioners in Trivandrum, only a very small portion of the services are being requested for from the mofussil In order to make these services more easily available to all parts of the State it is proposed to have in the Second Plan period two more Laboratories, one at Ernakulam and the other at Kozhikode It is not intended that these District Laboratories should undertake production of vaccines which will as heretofore be done in the Central Laboratory The District Laboratories will attend to the Diagnostic services, examination of food, water, sewage etc and later on drugs also if necessary. The District

Laboratories will be housed in buildings near the District Hospitals for the convenience of patients The control of the District Laboratory will be vested in the Superintendent, Public Health Laboratory The total cost of the scheme is Rs. 7.75 lakhs.

5 SYSTEMS OTHER THAN MODERN MEDICINE— AYURVEDA.

127. The following schemes for the expansion of the Ayurveda Department are included under the Plan.

1 Opening of Hospitals and Dispensaries.

128 It is proposed to open one District Hospital, 20 Taluk Hospitals and 91 dispensaries The Financial target is Rs 33 30 lakhs.

2 Enhancement of Grant-in-aid

129 It is proposed to enhance the present rates of grant-in-aid to Vaidyans The Financial outlay of the scheme is Rs 2 69 Lakhs

3. Development of Pharmacy.

130 The intention is to stock medicines at the headquarters of each district and distribute it to various institutions At present there are 4 depots, one in each District of the Travancore-Cochin area These depots can cater to the needs of the institutions in the respective districts It is proposed to open 3 more Depots one in each District of the Malabar area The financial target of the scheme is Rs 1 42 lakhs.

4 Cultivation of Medicinal Plants.

131 For the ready availability of genuine Ayurvedic herbs, it is proposed to cultivate them in land to be set apart in the forest areas This scheme will cost Rs 1 14 lakhs

5 Entertainment of additional staff

132 The programme of expansion necessitates corresponding increase of staff also A sum of Rs. 2·03 lakhs is included for the scheme to strengthen the administrative wing of the Department.

6. Co-operative agency for manufacturing Ayurvedic Drugs

133 With a view to relieving the acute scarcity and shortage in the supply of genuine Ayurvedic medicines, to eliminate the unhealthy competition and mal-practices prevailing in the open market and to bring about uniformity in the quality of indigenous medicines, it is proposed to reorganise the S K. V. G A. Pharmacy at Trichur on a co-operative basis

134. The authorised share capital of the concern will be Rs. 5 0 lakhs consisting of 50,000 shares at Rs. 10 each, of which 50% will be subscribed by the State Government The Government's share capital is redeemable. The present assets of the S K V. G. A. Pharmacy, Trichur, will be valued by a sub-committee appointed by the Board of Management of the proposed co-operative society and the estimated value thereof to the extent of 50%

of the authorised share capital will be converted as redeemable shares in the name of the State Government and the balance if any invested in the working capital of the Society in the name of Government The financial target of the Scheme is Rs 5·0 lakhs.

135. The total cost of these six schemes is Rs. 45·58 lakhs,

AYURVEDA COLLEGE.

1. Construction of buildings for, and administration of College.

136 The Second Five Year Plan of the College is the logical further development from the Stage reached at the end of the First Plan The completion of the Collegiate Hospital has been carried over from the First Plan to the Second Plan. Besides, a Maternity Block, Research Block, Pharmacy Block and X-ray Block will be added. Residential accommodation to house 400 students will be provided

137. The College has no facilities for out-door games Courts and Play grounds have to be provided A research centre will also be started

2 Botanical Garden.

138 It is proposed to establish a Botanical Garden at Poojapura or Thirumala Different types of medical herbs will be planted here

3. Refresher Courses for Vaidyans.

139 The majority of the people in this country, especially the people in the rural parts, get medical aid in times of need, from the Vaidyans practising at those places. It is necessary to give them refresher courses Moreover most of them do not possess sufficient knowledge of public Health Hygiene, Midwifery etc. It is imperative that they should be given sufficient knowledge in this direction also A referesher course for Vaidyans is therefore proposed to be started.

140 The total cost of all these proposals is Rs 36 62 lakhs, out of which the central share amounts to Rs. 17 10 lakhs The balance of Rs. 19 52 lakhs being the State's share is included in the Plan.

4 Clinical Research

141 A Clinical Research Section with 20 beds has been started functioning as a part of the Ayurveda Hospital from 1957-58. This is to be separated from the Hospital and run as a separate section under a Research Professor For this Medical Staff (both Ayurvedic and Allopathic) Nursing Staff, Laboratory staff etc., have to be provided. A Clinical laboratory is to be fitted up.

142. The financial target of the scheme is Rs. 0 50 lakhs. The Central Government will meet the whole expenditure.

6. SYSTEMS OTHER THAN MODERN MEDICINE AND AYURVEDA—HOMEOPATHY.

143. The object of the scheme is to open five Homeopathic dispensaries, out of which one has been opened in Trivandrum in February 1958 The remaining 4 dispensaries are proposed to be opened in Quilon, Alleppey, Palghat and Kozhikode Districts

144. An amount of Rs. 0 48 lakh excluding the Central share of Rs. 0 47 lakh is provided in the Plan for the encouragement of Homeopathy, Unani etc.

7 RURAL WATER SUPPLY

1 National Water Supply & Sanitation Project

145. This Programme consisted of four Projects, viz. Nanjinad Project, Mavelikara-Thiruvella Project, Kuttanad Project and Vypeen Project. The works which were incomplete at the end of the First Five Year Plan were carried over to the Second Five Year Plan as spill-over schemes Of these the Nanjinad Project was transferred to the Madras State with the re-organisation of States on 1-11-1956. The schemes provide for the construction of simple type latrines, protected surface wells, Filter point wells, sanitary Draw wells, etc Water is distributed from protected surface wells and Filter point wells, through pipes by means of hand pumps The financial target for the existing 3 Projects at Kuttanad, Mavelikara, Thiruvella and Vypeen is Rs 8.57 lakhs

2 Sanitation in costal areas in Kuttanad.

146. Environmental sanitation in coastal areas of Kerala is far from satisfactory Based on the results obtained in the Pilot Project (W H. O Aided) Trivandrum and the research carried out by the Research Unit (under I C M. R.) at Karunagapally cheap form of latrines has been evolved and it is proposed to install such latrines in the entire coastal area The physical target is tentatively fixed as 10,000 latrines each year commencing from 1958-59 The financial target for this scheme is Rs 15 lakhs.

3. Rural Water Supply Scheme.

(a) TUBE WELLS

147. It is proposed to construct about 200 tube wells during the Plan period. Work is being carried out in the coastal areas between Shertallai and Quilon and in Kuttanad area Tube wells have been found a success in the coastal areas in Travancore-Cochin part only. Water is being supplied to the people by means of hand pumps This benefits people living in places in the neighbourhood of each tube well Where the supply is adequate enough to benefit a population of about 5,000 the source of water in each of such tube well is being

utilised for distribution by means of reservoirs, pipes, taps etc. Distribution works have been taken up in the following areas and will be completed in 1958-59.

1. Mancombu
2. Harippad
3. Chavara
4. Oachira.
5 Valiazheekal
6 Purakad.
7 Thrikadavoor
8 Pulinkunnu

(b) WELLS.

148 Tube wells experimentally tried in a number of places in Malabar area were found to be not successful So the rural water supply programme in Malabar consists of wells of adequate capacity with storage reservoirs with distribution system During 1957-58 the following 11 wells have been taken up·

1.	Kottayi	Palghat District
2.	Erimanoor	
3	Koduvayoor	
4	Dharmadam	Cannanore District
5	Payyannoor	
6	Irinavoo	
7	Naduvattom	Kozhikode District.
8	Kollam	
9.	Cheruvanoor	
10	Pokkunnu	

(c) SHORANUR WATER SUPPLY SCHEME

149 Water supply to Shoranur Panchayat was originally sanctioned by the Madras Government as Local Development work. The scheme has since been included in the State Plan The scheme is to take water from the Bharathapuzha by constructing an infiltration well of 10′-0″ internal dia and 12′-0″ deep, to pump water to a reservoir of 2,000 gallons capacity and to distribute the water through taps The expenditure incurred on the scheme under Local Development works programme amounted to Rs. 26,771 The revised estimated cost of the scheme is Rs 55,000.

150. The total Plan provision for the above Rural Water Supply schemes is Rs. 44 71 lakhs

4 Investigation of Water Supply Scheme in Malabar

151. This allotment is for the investigation of water supply schemes in rural areas in Malabar in the last 3 years of the Plan Such work is essential to get schemes ready for execution The financial target of the scheme is Rs. 2 50 lakhs

5. Ottapalam Water Supply.

152. The source of water supply for Ottapalam is the Barathapuzha river, on the bank of which Ottapalam is situated An Infiltration Gallery is proposed to be laid under the bed of the river and water drawn from a suction well, to which the Infiltration Gallery will feed The water is proposed to be pumped through a 9″ dia pumping main to a ground level reservoir to be located in the premises of the Travellers' Bungalow, which is the highest spot in the locality The scheme is designed for an ultimate population of 25,000 in 1961, with a rate of supply of 10 gallons per head per day The financial target of the scheme is Rs 3 00 lakhs.

6. Palghat Water Supply

153. The water supply for Palghat is from the Malampuzha reservoir situated about 5 miles away from the centre of the town The water will be drawn at different levels depending upon the level of water in the reservoir, and treated and purified and pumped to two reservoirs situated in the north and south of the town from which water will be distributed to the north and south zones The scheme is designed for an ultimate population of 1,20,000 in 1961 the rate of water supply being 15 gallons per day per head of population The financial target of the scheme is Rs. 40 00 lakhs.

7 Kozhikode Drainage Scheme.

154. This scheme has been provided in the Second Five Year Plan by the Madras Government. It is to be taken up in the concluding years As the present supply of water is inadequate to work an underground Drainage Scheme successfully, investigation to augment supply of water is in progress It has been proposed to provide a sum of Rs 20 00 lakhs for this purpose

8 Provision to meet excess cost

155. The cost of materials is going up rapidly and the various works will need additional funds to meet the increased cost. In order to meet this contingency a sum of Rs 12 00 lakhs is proposed.

9 Tools and Plant

156. Considerable funds are needed to maintain the Tools and Plant for the Rural Water Supply Schemes and for replacement and new equipment A sum of Rs 27 00 lakhs is provided for this purpose

10 Public Health Engineering Staff.

157 To carry out the above items of work and the Urban Water Supply and drainage schemes undertaken under "Central Sector", it is essential to provide necessary staff at all levels, and for this a provision of Rs 4 75 lakhs is made for the Plan period.

8 HOUSING.

1. Industrial Housing

158. The Subsidised Industrial Housing Scheme is a Government of India Scheme for providing housing facilities to Industrial workers, governed under the Factories Act, 1948 (Act LXIII of 1948) and those employed in mines governed under the Mines Act of 1952 (Act XXXV of 1952) and excludes employees of the Central and the State Governments of local authorities, and of any statutory bodies (other than those paying income tax in respect of their earnings or a part thereof, even if they are governed by the Factories Act of 1948 or by the Mines Act of 1952) Workers in Corporations or Companies owned in part or in full by Central or State Governments will, however, be entitled to assistance under the scheme.

159 The construction will be carried out by·

(1) State Governments or Statutory Housing Bodies ,
(2) Employers , and
(3) Registered Co-operative Societies of Industrial Workers

160. The minimum standard of accommodation required for each tenement is·

A. One-roomed tenement.

(i) Room	120 sq ft.
(ii) Verandah & Kitchen	72 ,,
(iii) A bath room	16 ,,
(iv) A lavatory	12 ,,
Total	220 ,,

B. Two-roomed tenement:

	Single storeyed sq ft	*Multi-storeyed sq ft*
(i) Room No 1	120	100
(ii) Room No 2	96	99
(iii) Kitchen & Verandah	100·5	98
(iv) Bath room	16	16
(v) Lavatory	12	6·5
(vi) Cupboard	11	12
Total	355·5	331·5

161. The standard cost for each type of tenement fixed by the Government of India is:

Type of tenement.	Cost per house inclusive of cost of land and development.
	Rs.
1 Single storeyed one-roomed	3300
2. Single storeyed two-roomed	3850
3 Double storeyed one roomed	3500
4. Double storeyed two roomed	4200

162 The Government of India will give financial assistance based on either the standard cost given above or the actual cost, whichever is less The financial assistance will consist of (1) 50% loan and 50% subsidy in the case of State Governments and Statutory Housing Boards (2) 50% loan and 25% subsidy in the case of Co-operative Societies and (3) 37½% loan and 25% subsidy in the case of employers.

163 The loan amount is repayable by State Governments and Co-operative Societies of Industrial workers at 4½ % interest in 25 annual equated instalments and by employers at 4½% interest in 15 annual equated instalments.

The standard rate of rent for each type of tenement is :

	Rs.
(i) Single storeyed one-roomed	12.50
(ii) Single storeyed two-roomed	14.50
(iii) Double storeyed one-roomed	13 50
(iv) Double storeyed two-roomed	16 00

164 The Plan provision is Rs. 51 00 lakhs The physical target is 1324 houses

2 Low Income Group Housing Schemes

165 The following schemes come under Low Income Group Housing Schemes

(a) Low Income Group Housing Schemes

166 This is a scheme sponsored and financed by the Government of India with a view to help people belonging to low income groups to build houses by extending long term loan to State Governments and they in turn to the parties.

167. Under the scheme loans are advanced to State Governments at 4½% interest per annum for disbursement to persons whose income does not exceed Rs. 6,000 per annum or to housing co-operative societies consisting of such persons. The loan given by the State Governments to parties should not exceed 80% of the actual estimated cost of the house, inclusive of land subject to a maximum of Rs. 8,000 per house State Government is imposing 5% interest per annum on the loan.

168 The Plan provision for this scheme is Rs. 58·63 **lakhs. The physical target is 1161 houses.**

(b) Co-operative Housing Societies

169. The Housing Schemes on Co-operative basis are purely loan schemes and they consist of Urban Housing Schemes and Rural Housing Schemes The Urban Housing Schemes are based on three types of co-operative housing societies The first type is the ordinary building society based on the individual ownership system. These societies advance long-term loans to members for construction of houses on sites already owned by them or acquired by them through the society The actual construction of houses is generally left to the members themselves. The ownership of the houses vests with the members who pledge them to the society as the security for the loans The second type is the house-building society which is also based on individual ownership system It acquires sites for the establishment of a co-operative colony and under takes construction of houses on behalf of the members It is this feature that distinguishes it from an ordinary building society The third type is the Co-operative Tenancy Housing Society The St. Joseph's College Co-operative Tenancy Housing Society in Kozhikode is the only society of this type in this State The object of the society is to construct residential quarters for the staff of the college

170 The housing societies obtain loans from Government up to 4 times the paid-up share capital of the applicant subject to a maximum of Rs 10,000/- per house The loans are generally repayable within a period of 20 years The present rate of interest charged by Government is 4½% Usually the societies charge an additional interest of 1% on the members towards establishment charges.

171 The Rural Housing Societies are also formed on individual ownership system and they also obtain funds from Government and issue loans to their members for construction of houses as in the case of ordinary building societies The maximum limit of Government loan to members of rural housing societies is however limited to Rs 5,000/- per house The total Plan provision for Co-operative Housing Schemes is Rs. 8 20 lakhs

(c) Houses for Employees of Local Bodies drawing Rs 100 or less per mensem

172 The object of the scheme is to provide houses for the employees of the Local Bodies whose monthly income is Rs 100 or less by advancing loans to the Local Bodies Under the scheme a Local Body will get a loan equal to 80% of the cost of construction of a house including the cost of site subject to a maximum of Rs 2800/- per house The balance 20% has to be met by the Local Body concerned The loan amount under this scheme will be sanctioned as a single payment subject to the following conditions, viz: —

(1) That the houses to be constructed by Local Bodies do come up according to a fixed schedule,

(2) That the loan amount does not lie needlessly idle with the Local Bodies for any length of time, and

(3) That the money is utilised by the Local Bodies for the purpose for which it has been given.

A sum of Rs 5 85 lakhs has been provided for the scheme during the Plan period The physical target is 152 houses.

(d) Poor Housing.

173. The scheme is intended to provide houses and house sites to agricultural labourers, fishermen, municipal menials, scavengers, sweepers and other labourers The scheme will be worked out through co-operatives and the amount due to Government is to be repaid in 25 equal annual instalments The amount expended will be treated as interest-free loans. Each occupant member will get the ownership of the house after all the dues to Government are paid A sum of Rs 20·80 lakhs has been provided for this scheme. The physical target is 1000 houses

(e) Settlement Scheme

174 This is a scheme intended for people of the lowest income-group in the State This being a State-sponsored scheme, no help is available from the Centre Under this scheme, each settler will be given 5 cents of land in urban areas and 10 cents in rural areas along with a sum of Rs 250/- towards the cost of building materials and a monetary grant of Rs 50. The settlers are expected to build their houses according to type designs approved by Government.

175. The selection of settlers will be made in consulation with a local committee constituted for the purpose. The Collectors have been empowered to give sanction for this scheme A sum of Rs 36 52 lakhs is provided in the Plan The physical target is 5000 settlers

3. Plantation Labour Housing Scheme.

176. The scheme contemplates assistances to small planters for the construction of tenements for their resident workers.

177. Loans will be granted by the State Government to planters deserving such assistance for construction of residential houses for their resident plantations workers governed by the Plantations Labour Act, 1951 Whether a planter deserves assistance or not will be determined by examination of the planter's financial position, building programme in hand and other such factors But ordinarily planters possessing plantations below 500 acres only will be considered as "Small Planters" deserving help under this scheme Government-owned plantations are not entitled to assistance under this scheme

178 The State Government will advance loans at the rate of interest to be decided by Government from time to time, recoverable in 30 equated annual instalments.

179 The loan assistance by Government will not exceed 80% of the actual cost of construction of the houses (exclusive of the cost of land and its development, which will not be taken into account for the purpose) subject to a maximum of Rs 1,600 per house The employers will have to raise at least 20 per cent of the finance themselves (in addition to the cost of land and its development) There is no objection the houses being built by the employers at a higher cost The assistance from the State will however be limited to the maximum of Rs 1,600 per house. The houses proposed to be constructed under this scheme are only one room tenements.

180 The total amount of loan that may be sanctioned to a planter during any financial year shall not ordinarily exceed the amount admissible for the construction of houses for 8 per cent of the total number of resident workers employed on the plantation on an average during the preceeding financial year, But in the case of plantations where the total number of resident workers is less than 125, loans up to Rs. 16,000 (assistance for the construction of ten tenements) may be sanctioned during a financial year More than one housing project for a plantation will not be sanctioned during the same financial year

181 The plan provision for the scheme is Rs 10 00 lakhs

4. Slum Clearance

182 This is a scheme sponsored by the Government of India The scheme envisages the grant of 25 % of the cost as subsidy and 50% as loan free of interest from Government of India provided the State Government is prepared to meet the remaining 25% as a matching subsidy The State Government has agreed to this proposal The financial target of the scheme is Rs. 14 32 lakhs

5 Village Housing Project Scheme.

183 The Government of India have formulated a scheme entitled Village Housing Project Scheme to utilise the Plan provision made in the Second Five Year Plan for Rural Housing According to the scheme the Government of India will advance loans to State Governments at the usual rate of interest recoverable in 20 equated annual instalments The above loan assistance is limited to 50% of the estimated cost of construction of a house (excluding cost of land) subject to a maximum of Rs 1,500 The loans received from the Government of India have to be used for granting of loans to residents of selected villages or to Cooperatives of such persons for building houses on "an aided self-help basis" subject to the limitation of 50 % of the estimated cost of construction. The State Government can charge interest not exceeding half per cent over the interest payable by the State Government to the Government of India

184. The Government of India have pointed out to the State Government the need, for setting up of a Rural Housing Cell at the State Headquarters for drawing up model plans, lay-out

and estimates and for the execution of village housing project scheme. The expenditure on this organisation will be shared by the Government of India with the State Government. The pattern of the staff suggested by the Government of India for the composition of the Rural Housing Cell is as follows:—

Superintending Engineer .	1
Assistant Engineers	2
Assistant Architect (or Assistant Town Planner)	1
Overseers/Surveyors ..	6
Architectural Draftsman	1
Stenographer ..	1
Upper Division Clerk .	1
Lower Division Clerk ..	1
Peons	3

185 The Government of India will be meeting 50% of the expenditure of the salary and allowances including T A of the staff actually employed in the Cell subject to a maximum of Rs 35,000 per annum The above amount will be made available in the form of grant which can be drawn by the State Government from the Ministry of Works, Housing and Supply, Government of India annually Rs.1 21 lakhs has been provided as the States's share for the scheme. The corresponding Central share will be Rs. 40 lakhs The physical target is 2400 houses The amount required for payment of loan will be placed at the disposal of the Collectors for the implementation of the scheme through N E S Blocks

186. It is proposed to implement this scheme from 1958-59

10. HARIJAN WELFARE

WELFARE OF SCHEDULED TRIBES.

1. Education

187. Most of the Scheduled Tribes in Kerala State are educationally very backward In order to improve their condition in the field of Education, schemes have been formulated for providing educational concessions, opening new tribal schools, free supply of mid-day meals, etc.

188. Educational concessions will be granted to 2350 tribal students ; 38 tribal schools will be maintained; 15 new schools will be opened, and mid-day meals will be supplied to 500 students. Six hundred students will be given boarding grants A sum of Rs 11·37 lakhs is provided for these purposes

2. Medical and Public Health

189. In order to give medical aid in time to all patients belonging to scheduled tribes, 2 Mobile Medical Units will be organised and maintained In addition to this wells will be sunk and a

bridge connecting the tribal areas near Kuttiadi in Cannanore District will be constructed. For these purposes a sum of Rs. 3 53 lakhs is provided

3 Model Welfare Centres.

190 The Model Welfare Centres are intended to provide facilities for the training of Scheduled Tribe candidates in Cottage Industries and for imparting education to the adult members. The existing Welfare Centres will be maintained and 26 new Model Welfare Centres will be established during the Plan period A sum of Rs 3 10 lakhs is allotted for this purpose.

4 Land and Settlement including Housing & Common Building

191 The Tribes resort to shifting cultivation and some are now dwelling in insanitary huts and others on tree tops It is proposed to settle them on a permanent basis For this purpose land will be set apart for them in the forest area and they will be provided with loans and free grants for improvement of lands and purchase of implements, cattle, etc It is proposed to construct 961 houses and to settle 964 tribal families in Attapady Valley of Malabar area and 6 Aranaden families in Kozhikode District For this purpose a sum of Rs 14 98 lakhs is provided in the Plan

5 Forest Co-operatives

192 To educate the tribes on the advantages of the co-operative movement, tribal co-operative societies have been organised These societies will be given sufficient grants to finance stocking and disposal of forest produce The lease of the right to collect minor forest produce will as far as possible be given to these societies A paid secretary will be appointed in each society in the initial stage to educate the tribes and to manage the affairs of the society During the Plan period 18 Co-operative Societies and 2 Work Centres in cottage industries will be organised The financial target of the scheme is Rs 1 77 lakhs

6 Administration.

193 A provision of Rs 2 05 lakhs is made in the Plan for Administration

WELFARE OF SCHEDULED CASTES.

1 Education

194 Realising the fact that education is the most important of all activities for the uplift of scheduled castes, the Government have ear-marked a large amount for this purpose Schemes have already been formulated for the grant of educational concessions to Scheduled Caste students in the various colleges and schools and for the running of Pial schools and Harijan Welfare schools. It is proposed to maintain 129 schools and 3 hostels; and to grant 14,61,867 Scholarships and 3987 boarding grants An amount of Rs 82 00 lakhs has been provided for this scheme.

2 Eradication of Untouchability.

195. The propaganda Unit will be continued It will have a well-equipped film unit attached to it, for the eradication of untouchability In addition to this it is proposed to start seven Cottage Industry Centres, to print 76,900 posters and to give grants to hostels and social organisations and to give rewards to 120 persons who have rendered meritorious service in the case of the removal of untouchability A sum of Rs 18·88 lakhs is provided for this scheme

3 Housing.

196 The scheme envisages the provision of properly ventilated hygienic and cheap houses for Harijans It is proposed to construct 2294 houses during the Plan period for which a sum of Rs 22·94 lakhs is provided.

4 Public Health

197. Most of the Harijan colonies are in an insanitary condition Hence a scheme for providing wells, latrines, burial grounds, etc., in these colonies has been formulated in the Second Five Year Plan It is expected to sink 270 wells, construct 190 latrines and provide 45 burial grounds and appoint 16 health visitors In addition to this it has been decided to acquire 1036 house sites to settle 4507 families A sum of 8·03 lakhs is provided for the scheme

5 Agriculture and Rural Development

198. A sum of Rs 2 66 lakhs has been provided to give free grants and loans to co-operative societies for scheduled castes.

6 Cosmopolitan Hostels.

199. It is proposed to construct Cosmopolitan hostels for the welfare of scheduled caste students. A sum of Rs 5 0 lakhs is proposed to be spent during the Plan period

7. Contingencies.

200. A sum of Rs. 0·30 lakh has been provided to extend legal assistance to redress the grievances of Harijans.

8. Miscellaneous—Grants to non-official agencies.

201. Financial assistance will be given to non-official agencies such as Harijan Sevak Sangh, Depressed Classes League and other social organisations engaged in the work of propaganda against the practice of untouchability. The grant will be broadly confined to the incurring of the following items of expenditure by the non-official agencies in connection with launching of intensive propaganda for the removal of untouchability

i Appointment of Pracharaks

ii. Supply of pamphlets to villages on the removal of untouchability.

iii Conduct of Bhajanas, Dramas, Meetings etc, in villages and showing of cinema slides.

iv Opening of libraries in the villages to educate the scheduled castes and others on the evils of untouchability

A sum of Rs 0 26 lakh has been provided for the purpose.

9. Administration.

202. A provision of Rs. 2 72 lakhs has been made in the Plan for administration

WELFARE OF OTHER BACKWARD CLASSES

1. Education

203. A sum of Rs. 40 86 lakhs has been provided for the grant of scholarships to 2500 students and boarding grants to 1950 students during the Plan period In addition to this it is proposed to maintain a few schools and to construct some buildings for the existing schools.

2. Miscellaneous

204. Rupees 0 11 lakh has been provided to give discretionary grants to Other Backward Community families for the purchase of agricultural implements, seeds, seedlings, etc

10. SOCIAL WELFARE BOARD.

Social Welfare Extension Projects

205 The object of the Social Welfare Board is to undertake organised social welfare activities, to promote family welfare schemes in urban areas and to undertake other social welfare schemes for the children, the women, the physically handicapped and delinquents. These objects are being achieved by the establishment of Social Welfare Extension Projects. Each Project comprises seven welfare centres All the Centres are arranging for feeding 400 children at each centre out of UNICEF rice and also milk.

206. The State Social Welfare Board has no new schemes to work out during the Second Five Year Plan, but the schemes already started will continue Twenty-eight projects have been sanctioned by the Central Board of which 18 projects have been started. Opening of additional Projects depends on the availability of local support. The State's share of expenditure on this programme is Rs. 9·76 lakhs. This has been provided in the Plan.

11. SOCIAL AND MORAL HYGIENE AND AFTERCARE PROGRAMMES.

I. Aftercare Programme.

207. The following schemes come under the Aftercare Programmes of the State for the Second Five Year Plan period.

1. **Aftercare Home.**

208. This Home is intended for the aftercare of men discharged from correctional institutions like Jails, Reformatories etc. Suitable crafts or trades will be taught to such persons with the ultimate object of settling them in gainful employment or on useful trades. These persons will be permitted to stay in the Home only till such time as may be needed to enable them to stand on their own legs. The Home has already been started at Trivandrum. The financial target of this Scheme is Rs 2·35 lakhs. This is a Centrally Sponsored scheme and an equal amount will be available as Central assistance

2. **Rescue Home.**

209 The Home has been started at Ernakulam. This is intended to accommodate women rescued from moral danger and for whom a fairly long period of social and environmental adjustment may be necessary prior to giving vocational training. The inmates will be given training in suitable crafts The financial target is Rs. 2 35 lakhs This is also a Centrally Sponsored Scheme The Central assistance will be equal to the State share of Rs. 2 35 lakhs.

3 **Aftercare Shelters**

210. These are intended for receiving groups of persons requiring aftercare and for housing them pending transfer to the State Home. Three such shelters have been started at Trichur, Cannanore and Kozhicode. The financial target of each shelter is Rs 55,000 This too is a Centrally sponsored scheme. The total financial target of the scheme is Rs 1.65 lakhs An equal amount will be available as Central assistance

4 **Rescue Shelters**

211 These are intended for temporary accommodation of rescued women pending transfer to the Rescue Home Four rescue shelters have already been proposed to be opened at Trivandrum, Kottayam, Alleppey and Palghat. The financial target is Rs 55,000 each Two more shelters are proposed to be opened The places have not been fixed The financial target of the two shelters is Rs 96,000 Total financial target of the scheme is 3·16 lakhs This is a Centrally sponsored scheme, the Central assistance being equal to the State share.

5. **Aftercare Home for men discharged from non-correctional Institutions.**

212. This is proposed to be started in the Malabar area of the State. The financial target is Rs 1,34,000. This scheme is eligible for Central Assistance equal to the financial target.

II **Care Programme.**

213. The following schemes come under this Programme: —

1. **Care Home for disabled children**

214. Two Homes are proposed to be started one each at Quilon and Trichur. Each Home can accommodate 25 inmates who will be given training in industries in addition to educational facilities. The financial target is Rs. 1·10 lakhs.

2. Remand Homes.

215. Remand Homes are intended to lodge juveniles in custody undergoing investigation or trial on criminal charges so that they may not be lodged in ordinary jails or lock-ups. They are proposed to be started at Trivandrum, Quilon, Alleppey, Ernakulam, Palghat and Cannanore The financial target is Rs 1.32 lakhs

3. Borstal School

216. The object of establishing Borstal Schools is to detain adolescents convicted by courts. A Borstal school is proposed to be established near Trichur

217 Consequent on the reorganisation of States the Malayalee inmates of the Borstal School, Palayamcottai had to be transferred to Kerala In order to accommodate them a Borstal School was started in a block of the Central Jail, Cannanore as a temporary measure The financial target is Rs 2 lakhs

4 Probation Service.

218. According to the Probation System offenders are released on good behaviour upon conditions prescribed by the Court and under the guidance of an officer known as the Probation Officer The advantage of the probation is that it permits a more normal social life and experience than institutionalisation which tends to destroy the relationship with family, friends or occupation The Probation Service is in existence in the Malabar area where the "Madras Probation of Offenders Act" is in force The service has to be extended to the Travancore-Cochin area by an amendment to the Madras Act It is also proposed to appoint Honorary Probation Officers in all the Districts and the Chief Probation Superintendent at State Headquarters The financial target of the Scheme is Rs 4 60 lakhs The Central assistance would be about Rs. 4 56 lakhs

5. Juvenile Courts

219. Juvenile Courts for trying juvenile offenders are proposed to be opened at Trivandrum, Ernakulam, Trichur, Quilon, Kottayam, Alleppey, Palghat and Tellicherry A juvenile Court is already functioning at Kozhikode The financial target of the scheme is Rs 58,000 Implementation will have to await enactment of a Children's Act in the State.

6 Children's Clubs & Parks.

220 These are proposed to be started at Quilon, Alleppey, Kottayam, Ernakulam, Trichur, Palghat, Kozhikode and Cannanore The financial target is Rs. 48,000.

7. Shelters for Waifs and Strays.

221 At Mannanam there is an institution run by philanthropists. The idea is to give them financial assistance for expansion. New Shelters have to be started at Kozhikode and Ottappalam. It has not been decided to start the scheme. If and when decided necessary funds can be found from savings under the other items.

12. NATIONAL EMPLOYMENT SERVICE.

222 In the Second Five Year Plan, four schemes have been approved by the Government of India for developing the National Employment Service.

1 Expansion of the Coverage of Employment Service.
2. The Collection of Employment Market Information.
3 Vocational Guidance
   (i) Youth Employment Service.
   (ii) Employment Counselling.
4. Occupational testing at Exchanges.

1. Expansion of Coverage of Employment Service.

223 Two Employment Exchanges have been opened at Quilon and Kottayam during 1957 Sanction has been accorded to open three more Exchanges at Alleppey, Palghat, and Cannanore. The Special Employment Exchange at W Island has now been ordered to be shifted to Trichur with effect from 1-6-1958 and up-graded as a District Employment Exchange. The objective of establishing an Employment Exchange in each District Headquarters has been achieved.

224 A provision of Rs. 2 21 lakhs has been included for the entire plan period.

2 The Collection of Employment Market Information.

225. For the efficient working of the National Employment Service, it is necessary that this organisation should have a correct idea of the number of employees employed in each of the private and Government undertakings and the Number of vacancies that are likely to arise in the near future. The Scheme was implemented during September 1957. By the end of the Second Five Year Plan this scheme will be established in all the Employment Exchanges A provision of Rs. 0·82 lakh has been made for the Scheme

3. Vocational Guidance

(i) YOUTH EMPLOYMENT SERVICE

226 At present there is no organisation to direct and advice Youths to choose the proper course of study and occupation suitable to their tastes and aptitudes. The Youth Employment Service in Employment Exchanges is to give such guidance to the youths in Schools and Colleges so that they may select the right path during their academic course itself. Proposals for the implementation of the scheme have been forwarded to the Government of India. A provision of Rs. 0·31 lakh has been made for this scheme

(ii) EMPLOYMENT COUNSELLING.

227. In the Employment Exchanges there are at present no facilities for giving proper guidance to the seekers of employment in shaping their future career according to their tastes As a result even qualified technicians sometime take up unskilled categories of Jobs In order to avoid such waste of man power, the Government of India have made necessary provision in the 2nd Five Year Plan to establish separate Employment Counselling at Employment Exchanges. Proposals for the implementation of the Scheme have beeen forwarded to Government of India. A provision of Rs 0 10 lakh has been made for this Scheme

4. The Occupational Research and Analysis

228 The idea underlined in the scheme is to prepare a book containing definitions, descriptions etc. of all the trades in the country For this the State will have to furnish the details in respect of this State for the above purpose to the Directorate General of Resettlement Proposals have been sent to the Government of India for the implementation of the Scheme.

229 The expenditure on all the above schemes is shared by the Central and State Governments in the ratio of 60 40 The total provision of Rs. 3·44 lakhs represents only the State's share

13 CRAFTSMEN TRAINING SCHEME

230 The Government of India have accepted the recommendations of the Training and Employment Services Organisation Committee (Shiva Rao Committee) that the training facilities now provided in the Centres run by the Directorate General of Resettlement and Employment should be integrated with the similar facilities provided by State Governments and that the training organisation, should also be placed under the administrative control of the State Governments This position has been accepted by the State Government also.

231 The main function of the Government of India vis-a-vis the scheme hereafter will be only to lay down policies for the training of craftsmen to co-ordinate the overall training programme throughout the country and to subsidise the integrated schemes The specific responsibilities of the State Government are —

(i) to organise training programmes in accordance with the policy and standards prescribed by the Government of India ;

(ii) to take steps to organise in-plant training and full length apprenticeship programme ,

(iii) to set up wherever possible State Boards or *ad hoc* Local Committees affiliated to the Central Board to co-ordinate the overall training programme in the State and to conduct examinations ; and

(iv) to maintain Advisory Committees for advising State Government in the selection of trades in which training should be imparted and also in the selection of candidates

The schemes included in the Second Five Year Plan are briefly described below:—

1. Industrial Training Inst

232. The scheme is to upgrade the Industrial training centre at Trivandrum as an Industrial Training Institute. It has been shifted from the premises of the Engineering College, Trivandrum, to the Barracks at Pangode. Its original capacity was only 144 seats and it has been increased to 400 seats by the second year of the Plan. The target of 512 seats will be achieved during the third year of the Plan.

2 Industrial Training Institute, Chalakudi

233. The Industrial Training Centre with a seating capacity of 120 trainees hitherto functioning along with the Maharaja's Technological Institute, Trichur was shifted to Chalakudi since the accommodation at Trichur was insufficient This is accommodated along with the Trade School, already functioning at Chalakudy It is proposed to raise the seating capacity of the Industrial Training Centre to 400 reaching the final target by 1958-59. By 1957-58, the seating capacity has been raised to 216.

234 The Trade School, Chalakudi is also proposed to be raised to the pattern of an Industrial Training Institute, with a seating capacity of 92 trainees

235. Both the Industrial Training Institute, Chalakudi and the Trade School, Chalakudi are functioning in the same premises. The total seating capacity of both the institutions aimed at, is 492 (400 for Industrial Training Institute and 92 for Trade School).

3. Industrial Training Institute, Cannanore.

236. There was no Industrial Training Institute in the Malabar area. So one Institute has been started at Cannanore with 144 trainees. The target of 400 seats will be achieved during the third year of the Plan.

4 Apprenticeship Training Scheme

237. This is to be introduced in the Industrial Centres of the State. As a preliminary step, the scheme has been introduced at Port Cochin

5. Evening Classes.

238. The object of the scheme is to improve the theoretical knowledge of Industrial workers by arranging evening classes either in technical Institutes or within the premises of an industrial establishment. The duration of the course will be two years. Twenty-five workers will be given training. Classes will be held three times a week and will be of two hours duration each. Any worker in an industrial establishment who is literate enough to follow the classes and who is sponsored by his company, will be eligible for admission. It is proposed to start the classes at Trivandrum and Kundara.

239. The total cost of the above schemes is Rs. 68·0 lakhs. These are Centrally sponsored Schemes, the Central share being Rs. 40·8 lakhs The balance of Rs. 27 2 lakhs is the State's share and it has been included in the Plan.

14 EMPLOYEES' STATE INSURANCE

240 The medical benefit services under the Scheme comprise general out-patient treatment in dispensaries and specialists' treatment inclusive of laboratory and X-ray examinations in the nearest headquarters hospitals with special arrangements for the treatment of general diseases, tuberculosis, maternity cases, etc. A preliminary survey was conducted in the Travancore–Cochin area with a view to gather relevant data as regards the concentration of factory labourers and other allied matters. It was revealed that 31000 insured employees (inclusive of 5000 women) working in about 200 factories are to be included under the scheme. Accordingly the scheme came into operation from the 16th of September 1956. Eleven stationary dispensaries and three mobile Medical Units started work from the above date with the full compliment of the staff

241 With the introduction of cash benefit from July 1957 the scheme has become more popular Besides continuing the existing medical benefit services in the implemented areas, the following new activities are envisaged to be taken up from the year 1958-59

(i) The extension of the scheme to new areas, viz. Trivandrum City and suburbs, Kozhikode Municipal town and outlying areas like Feroke,

(ii) Extension of the benefit of the scheme to the families of the insured,

(iii) Introduction of Ayurvedic system of treatment also for the insured,

(iv) Construction of permanent E S I. Dispensary buildings and provision of additional facilities for diagnosis and treatment in the E S I dispensaries.

242 It has been decided to extend the benefits of the scheme to the families of the insured from April 1958. With the inclusion of the families, the cost of provision of medical care is estimated to be Rs 40 per employee per annum and the expenditure on this account is to be shared by the Corporation and State Government in the proportion of 5 · 1. When the families of the insured are also brought under the benefit of the scheme, it is sure to relieve the congestion in the hospitals, as nearly 3 lakhs of patients would be diverted from hospitals to the E. S. I. Dispensaries for treatment The extension of the benefit of the scheme to the families is bound to add to the prestige and utility of this valuable welfare service during the Plan period.

243. The financial out-lay of the State Government in respect of the scheme for the period of the Second Five Year Plan is Rs. 11 80 lakhs, the Corporation's share being Rs. 63·3 lakhs.

CHAPTER XIII.

VI MISCELLANEOUS

PLANNING STATISTICS.

1 Planning Statistics.

A provision of Rs 9 50 lakhs has been included in the Plan for Planning Statistics It is intended for the following :

(1) *Statistical Cell for Planning Statistics.*

2 A Statistical Cell for Planning has been established from March 1957 to attend to the following main items of work.

(i) compilation and maintenance of complete and up to date data relating to individual schemes of the various Departments under the Second Five Year Plan

(ii) Conduct of special Socio-agro-economic surveys to assess the overall progress in the economy of the State as a result of the implementation of the Plan

3 The Cell will also be responsible for such studies as are necessary to evolve the Statistical frame needed for future plans

(2) *National Income Unit.*

4 The most important commitment of the State under the Plan is to examine from time to time the changes in economic welfare of the people as a result of the implementation of various developmental schemes. The aggregate of the additions in the various sectors of economic activity is an important indicator of national welfare Considerable work has to be done to assess these components With a view to undertake this work it is proposed to set up a National Income Unit in the Planning Cell in this Department This unit will essentially consist of a team of research workers supported by a strong field organisation. It is felt that the field unit in this Department could be utilised for surveys required to estimate national income The setting up of National Income Units in all State Statistical Bureaus has been discussed and agreed to in the fifth joint conference of the Central and State Statisticians.

5 The provision required for the Plan period is Rs. 0 80 lakh. The amount is proposed to be met from the provision of 9 5 lakhs for the Planning Statistics.

2. Construction of Indices of Parity between prices received and paid by farmers.

6. The work relating to compilation of indices of parity between the prices received and prices paid by farmers is now being attended to as a regular activity of the Statistics Department. It has since been considered that this work should be brought within the Plan and that as the work is mingled with the other activities of the Department, the expenditure on the scheme to

be provided for in the Plan will be 1/7 of the total expenditure for the Statistical Officers *plus* the expenditure for one Compiler. Accordingly a provision of Rs. 1·08 lakhs is included in the Plan for this scheme.

3 Purchase of Tabulator for the mechanical Tabulation Unit.

7. The Statistics Department is collecting a large volume of data from various departments and also from various surveys. The experience during the last few years has been that without mechanical aid the tabulations are either incomplete or are delayed Over and above the departmental data, the National Sample Survey (State) schedules have also to be analysed. A tabulator has thus become indispensible for the work load in this Department.

8. A sum of Rs 1·23 lakhs is included in the Plan for this scheme

4 Unit for Administrative Intelligence

9. The object of the scheme is to assess quantitatively the development works in various spheres, the physical targets and benefits to the community through the data collected and supplied by the field staff in the projects and blocks under the Development Department. Government of India is of the view that a separate unit will have to be created in all State Statistical Bureaus for this work The provision for the scheme included in the Plan is Rs. 0 50 lakh

2. PUBLICITY.

1. Purchase and distribution of Community Listening Sets

10. It is proposed to purchase and distribute 1,000 community receiving sets in the rural parts of the districts in the State Since the Local Bodies Department is now dealing with the distribution and maintenance of community listening sets, it is proposed to implement this scheme through that Department The funds allotted to this Department for the above purpose will be operated by the Local Bodies Department This is a Centrally sponsored scheme, the Central share being Rs. 1·7 lakhs. The State share of Rs. 1 7 lakhs is included in the Plan.

2. Production of Films.

11. The Government of India are at present producing films of news value and documentaries on developmental activities through the Films Division. But it may not be possible for them to provide adequate coverage to items concerning each State in particular. Therefore it is considered desirable that a few documentaries should be produced by this State, the work being got done by competent private concerns, or through the

Films Division, (Government of India) on cost-sharing basis. A sum of Rs. 0 50 lakh is provided for production of three documentaries and taking a few copies of them

3 Provision of Mobile Vans and Motor Boats.

12. It has not been possible to make full use of the films supplied by the Government of India for want of sufficient number of mobile units Moreover, it has been found very difficult to reach the waterlogged areas and enable the people who reside in such areas to be benefited by the film shows conducted by the Department of Public Relations. To obviate these difficulties, it is proposed that one mobile van with equipment should be made available for each district and one motor boat with cinema equipment, for use in the water-logged areas of the State A sum of Rs 3 43 lakhs is included in the Plan for this purpose

4 District Publicity Offices

13 At present there is no district organisation for the Department of Public Relations For effective publicity it is essential to have district organisations District publicity offices are proposed to be opened at the district headquarters other than Trivandrum where the office of the Director of Public Relations will serve the purpose. The district publicity offices will function as Information Centres as well A sum of Rs 2 18 lakhs is provided in the Plan for this item.

5 Purchase of Publicity Literature

14 A sum of Rs 0 50 lakh is provided for the purchase and distribution of publications brought out by the Government of India

6 Publicity through Exhibitions

15. Participation in exhibitions organised by Government and by prominent non-officials and organising other exhibitions by the Department at important festivals would prove to be an effective media for publicising the Plan and eliciting public co-operation. A sum of Rs 0.38 lakh has been included in the Plan for this. Preparation of models on the various projects and participation of the Department in exhibitions

7 Publicity through Press Advertisements.

16. A sum of Rs 0.25 lakh is provided for publication of advertisements on development projects and/or progress and achievements of the Plan.

8 Organisation of Field Publicity

17. For the organisation of field publicity activities, a sum of Rs. 0.50 lakh is provided Under this scheme, a special staff for organising field publicity and production of material for publicity is proposed to be appointed.

9 Cultural Development through Song and Drama.

18. The popular media of song and drama can be utilised with advantage for publicising the activities under the Plan. The Government of India have already started a separate division for this purpose and in the re-organised set-up of the Department of Public Relations a post of Cultural Development Officer has been sanctioned. It is proposed to appoint the minimum staff required for assisting the Cultural Development Officer and provide the funds required for arranging selection of best plays, etc., and for awarding suitable prizes A sum of Rs. 0 40 lakh is provided for this purpose

3 LOCAL BODIES AND URBAN DEVELOPMENT

19. The schemes under Local Bodies and Urban development are broadly classed as:

1 Town Planning, and
2. Town Development schemes

1 Town Planning

20 The scheme is intended to give financial assistance to municipalities for enabling them to have Master Plans of Development prepared for their towns The pattern of assistance accepted is 1/3 grant and 1/3 loan against the Local body meeting the 1/3 of the cost

The provision under this head is Rs 2.85 lakhs.

2. Town Improvement

21 The scheme is intended for extending financial assistance to the municipalities and Corporation of Trivandrum for execution of development schemes sponsored by them. For this purpose the schemes are classified as Remunerative and Non-remunerative schemes.

22 For remunerative schemes the entire cost will be advanced by Government as a loan to the Municipalities subject to repayment with interest at the usual rates

23 For non-remunerative schemes 1/3 of the cost will be given as grant and 1/3 as loan provided the municipality will meet the remaining 1/3 from their resources. The Plan provision for the scheme is Rs 71 80 lakhs.

4. MUSEUMS AND ZOOS.

24. The cultural and architectural value as also the educational importance of the institutions run by the Museum and Zoos Department deserves special mention A provision of Rs 3 00 lakhs excluding the Central share of Rs. 1.75 lakhs is made in the Plan for the development of the department. The State has three museums and 2 zoos. They are the Art Museum at Trivandrum, the Natural History Museum at Trivandrum, the Museum at Trichur and the Zoos at Trivandrum and Trichur. The following works are proposed during the Plan period:

1. Construction of a building for the Natural History Museum.

25. The Natural History Museum at Trivandrum is temporarıly housed ın the old Museum Buıldıngs with many show cases and other equıpments accommodated ın several other buıldıngs ın the premıses A separate building has therefore become essentıal and a provısıon of Rs 1.25 lakhs excludıng the Central Share of Rs 1.25 lakhs is ıncluded for thıs purpose

2 Construction of an Auditorium.

26. There is no audıtorıum at present attached to the museum at Trıvandrum A provısıon of Rs. 0.50 lakh excludıng the Central share of Rs. 0 50 lakh is earmarked for the purpose

3 Remodelling of the Museum building and construction of residential quarters for the Superintendent of Museum at Trichur.

27. The present Museum buıldıng at Trichur is very old and ıts roof ıs ın an unsafe condıtıon The buıldıng therefore requıres substantial ımprovement and alteratıons to make ıt a better structure to house exhıbıts on modern lınes The Superıntendent of the Zoo, Trıchur, has to be provıded wıth resıdentıal quarters. For these purposes a sum of Rs **1.25 lakhs** is provıded.

5 ANTI-SEA EROSION.

28. In the first Fıve Year Plan experımental work for prevention of sea erosıon on one mıle of the worst affected area of the sea-coast was taken up at a cost of Rs. 12.56 lakhs. Thıs work has been now completed Pilot studies are also beıng conducted at the Central Water and Power Research Statıon at Poona

29. The present proposal ıs to take up protectıve measures at some of the most ımportant poınts ın the State whıch are subject periodıcally to sea erosıon The programme wıll cover the followıng schemes:

Trivandrum District

Constructıon of sea walls and groynes		**2 miles.**

Quilon and Alleppey Districts

1	Constructıon of sea walls and groynes at Pallıpattukara between Pallana and Thrıkkunnapuzha.		5/8 mıle.
2	Do	at Thrıkkunnapuzha	1 mıle
3	Do	at Cherıazhıkal	1½ mıles.
4.	Do	at Alapad	1½ ,,
		Total	4 5 8 ,,

Malabar and Trichur Districts

1	Spill-over experimental sea wall and groynes at Manassery	1 mile
2.	New schemes: Construction of sea walls and groynes towards South in continuation of the experimental sea wall at Manassery	2 "
3	Do do South of Puthenthodu	1 "
4	Do. do from Azhithodu towards South in North Chellanam	7/16 ,,
5.	Do do from Nayarambalam to North (1 mile) and from Pazhangad thodu to north (1 mile)	2 "
6.	Do do. towards north in continuation of the experimental sea wall at Manassery	1 1/8 ,,
7	Construction of sea walls and groynes in continuation of existing sea walls in Kandakavu and Chellanam	2 miles.
	Total	9 9/16 miles

Cannanore District

Construction of sea walls and groynes at Tellicherry, Cannanore and Azhikkal — 1 1 2 miles

Kozhikode District

Construction of sea walls and groynes at Kozhikode and Beypore — 1 1/2 miles

The work will be mostly in the form of construction of long sea walls parallel to the coast with groynes 200 ft. long at 660 ft. intervals The total cost of the programme is Rs 185 lakhs (ie. Rs 184 80 lakhs for sea erosion works plus Rs. 0 20 lakh for investigation)

30 It is proposed to enact legislation whereby part of the capital cost of the works can be recouped from the beneficiaries of the works over a period of time

6 PLANNING ADMINISTRATION

31 It is felt that the organisation for the control and direction of Planning will expand in the Second Plan period on account of the large-scale programme in view, and of the work involved in drawing up the next Plan

32 Various statistical studies are contemplated partly for scientific evaluation of the progress of the Second Five Year Plan and partly for improving statistical knowledge to provide a reliable basis for the Third Plan It is also proposed to establish a "Forward Planning Wing" during the Third Year of the Plan with a view to cope with the increased responsibilities devolving on the Planning Branch

33 The nucleus of a small Planning Library in the Secretariat has been established in the first year of the Second Plan

34 The plan provision for Planning Administration is Rs 2.39 lakhs.

CHAPTER XIV

CENTRAL SECTOR SCHEMES

1. LOCAL DEVELOPMENT WORKS.

Local Development Works are intended for the permanent improvement of the country side. The following are the kinds of works that are taken up under the scheme: —

i. Water Supply Schemes.

ii Permanent works for the improvement of Agriculture including G. M. F. works.

iii. Permanent works for the improvement of rural sanitation.

iv Village roads

v Small bridges and culverts.

vi School or dispensary buildings where such institutions already exist, but are inadequately housed.

vii New school or dispensary buildings, if the immediate utilisation of such buildings for the purpose for which they are constructed is fully guaranteed and the execution of the work is taken up only after production of a sanction from the Head of the Department concerned to open a school or dispensary in that building.

viii Construction of godown for storage of goods.

ix. Similar schemes which would lead to permanent improvement in the country side.

2. These works will not ordinarily be undertaken in areas covered by intensive development schemes operated under the Five Year Plan

3. For works taken up under the schemes the Government of India will give a grant of 50% of the expenditure limited to Rs. 10,000 for each work The State Government will give a grant of 1/6 of the balance amount, subject to a maximum of Rs 3,333 The local bodies and the beneficiaries have to contribute the remaining amount in cash or by voluntary labour or otherwise No work costing above Rs 40,000 will be undertaken under the scheme.

4. The powers for selection and execution of the works under the scheme are vested with the District Collectors The selection of the works is done in consultation with the District Development Committee. The estimates for the works are prepared by the Executive Engineers of the Department of Local Bodies The Collectors are empowered to sanction estimates costing upto Rs 20,000. All the estimates costing above Rs. 20,000 are sanctioned by the Government.

5. No financial target for 1956-61 has been fixed; but it is estimated that not less than Rs. 30 lakhs will be spent annually on this scheme.

2. MINOR PORTS

6 The main items of port development works carried out in the erstwhile Travancore-Cochin State during the First Five Year Plan period were the reconstruction of the Valiathura Pier, Trivandrum and the improvements to the Alleppey Port. The work of the Valiathura Pier was almost completed by the close of the First Five Year Plan There was only very little progress in the improvements to the Alleppey Port. This work had therefore to be carried over to the Second Five Year Plan.

7 The Second Plan allocation for the development of Minor Ports in the Travancore-Cochin area is Rs. 30.50 lakhs as detailed below :—

Name of Scheme	Estimated cost (in lakhs)	II Plan provision (in lakhs)
Fresh Schemes		
1 Quilon-construction of a Pier at Quilon	22.50	22 50
2 Alleppey:		
(a) Mooring buoys temporary slipway and better type anchors for lighters	2.00	2 00
(b) Extension of Pier and repairs to existing Pier	3 00	3 00
3. Vizhinjam:		
Investigation of Vizhinjam harbour	1 20	1.00
Carried over Schemes:		
Alleppey.		
(a) Construction of Workshops and machinery	1 60	1 60
(b) Erection of cranes	0 40	0 40
	30.70	30.50

8 The work of construction of the Quilon Pier has not yet been commenced pending decision on the alternate scheme for a sheltered lighterage port at Thankassery An amount of Rs.1.25 lakhs is required during the Second Plan Period for the completion of the Valiathura Pier works Although this amount was not originally included in the Plan, it has since been decided to include this also by adjustment within the Plan allocation

9. The programme of Port Development for the ports in the Malabar area is of the order of Rs. 17 66 lakhs, as per details given below —

Name of Schemes	Estimated cost (in lakhs.)	II Plan Provision (in lakhs.)
I Kozhikode.		
Fresh Schemes:		
(a) Provision of electric cranes	1 60	1 60
(b) Provision of grab dredger/ mud punts for Beypore	2.00	2 00
(c) Provision of Aga Buoy	0 20	0.20
Carried over Schemes:		
(a) Extension of trolley lines	0.97	0 80
(b) Provision of Water Supply	0 06	0.06
(c) Construction of slipway at Beypore for hauling up of tugs	0.80	0.80
(d) Provision of aga light Buoy	0 15	0.15
II Badagara :		
Fresh schemes :		
Construction of Pier with Electric cranes	6·00	6·00
Carried over schemes ·		
Installation of an aga light on the flag staff	0·09	0·09
III Tellicherry		
Fresh schemes :		
(a) Repairs and renewals to deckings and structures of pier	1·00	1·00
(b) Supply of electric cranes	0·50	0·50
IV. Cannanore.		
Fresh schemes :		
Extension of cargo shed	0·10	0.10
V. Azhikkal .		
Fresh schemes :		
(a) Formation of road and reclamation for new wharf	0.40	0 40
(b) Construction of Jetty	1·20	1·20
(c) Provision of a tug	1·00	1·00

Name of Schemes.	Estimated cost (in lakhs.)	II Plan Provision (in lakhs.)
VI. Ponnani.		
Fresh schemes		
Improvement and extension of stone groyne	0 50	0 50
General.		
Providing quarters for outport staff	1 01	1.01
Total	17 58	17·41
Establishment charges		0·25
		17·66

10 Thus the total Plan allocation for Minor Port improvement works is Rs 48 16 lakhs These works are financed partly from the State Minor Ports Funds and partly from Central assistance in the shape of loans

3. INLAND WATER TRANSPORT.

11 The final allocation under Inland Water Transport approved by the Government of India, Ministry of Transport for the Second Five Year Plan is Rs 43 lakhs This allocation of Rs 43 lakhs is distributed among the following works :-

Sl. No.	*Name of Schemes*	*Plan provision lakhs* Rs
Priority I- New Schemes		
1	Allepey-Shertallai Canal	13·00
2	Trivandrum-Shornur Canal	11·00
3	Construction of Canal from Badagara to Azhikal	10·00
4	Investigation	2·00
Priority II-Improvements to Canals.		
1	Construction of toe walls on the sides of Commercial and Wadai canals at Allepey	4·46
2	Protective works to Narakkal canal	0·90
3.	Improvements to Mala canal	0·64
4.	Improvement to canal in Malabar	1·00
		43·00

12 The whole scheme is to be financed out of Government of India loan assistance.

13 The improvement of inland waterways is of great importance from the point of view of communications in the Kerala State. The West Coast canals form one of the important waterways for navigation. It consists of artificial cuts connecting together river mouths, creaks and natural backwaters. The waterways stretch from Hosdurg in the North to Trivandrum in the South except for a break between Valapattanam and Vadagara a distance of 30 miles A scheme for opening a new canal for this distance of 30 miles has been prepared. The total estimate of this project is Rs 115 lakhs, of this one section of about 7 miles from Mahe puzha to Murat Puzha costing Rs. 36·80 lakhs is proposed to be taken up during the current plan period and the Government of India have been moved for an additional allocation of Rs 29·80 lakhs on this account. As required by the Inland Water Transport Committee who visited the State recently further proposals for the improvement of Waterways in the State are also being formulated.

4. FLOOD CONTROL

14. The general scheme of Flood Control works comprises the construction of flood banks along both sides of the rivers to confine the flood flow within the river margin and the construction of groynes at points where damaging erosion takes place. For discharging the land drainage at selected points pumping stations will also become necessary

15 The Government of India have allocated a sum of Rs. 100 lakhs for flood control works in the State during the Second Five Year Plan.

16. In order to deal with this problem more effectively and to implement approved schemes with expedition, a Flood Control Board with a Technical Advisory Committee has been formed Only two estimates amounting to Rs. 5·40 lakhs for flood control works in Killiar and Pumpa and Manimala rivers have so far been approved by Government of India. Schemes for fully utilising the Central allocation will be prepared and the damage that is being caused by river floods will be considerably reduced by the end of the Second Plan period

5. URBAN WATER SUPPLY & DRAINAGE SCHEMES
(Including Corporation Schemes).

1. Trichur Water Supply Scheme.

17. The scheme is to provide water supply for the Trichur Municipality. The source of supply is the reservoir at Peechi, 11 miles away from the town. The work costing Rs. 59·5 lakhs,

was approved by the Ministry of Health, Government of India in 1954 It was taken up towards the end of the First Five Year Plan and has been spilt-over into the 2nd Five Year Plan. The work is in good progress.

2. Ernakulam-Mattancherry Water Supply Scheme.

18. The work costing Rs. 152·10 lakhs was approved by the Ministry of Health in 1954 As a first measure, improvement of the size of the main leading to the Reservoir and the Pumping Station in Ernakulam, the pipe lines under the Willingdon Bridge in lieu of old submerged pipe line, and increased main upto Mattancherry were sanctioned and work has been nearly completed. The installation of pumps of higher capacity at Perumanoor and improvements in the Water Treatment Works at Chowwara remain to be carried out It has also been proposed to have a comprehensive Scheme, costing nearly Rs. 100·0 lakhs, under which the present water supply of 28 lakhs of gallons per day will be augmented to 150 lakhs of gallons per day, by provision of big size Pumping main, new Treatment Plant and other Headworks located at Alwaye

3. Quilon Water Supply Scheme.

19 The Scheme is to provide water supply for the Quilon town from Sasthamcottah lake situated 18½ miles from Quilon. It is estimated to cost Rs 93 lakhs, of which Rs. 40 lakhs is expected to be received as contribution from the Indo-Norwegian Foundation, in the form of 28" dia pipe gravity Main from Sasthamcottah to Quilon, Pumping Plant, pipe laying equipment etc The work was approved by the Ministry of Health in 1954 This is a spill-over scheme The supply of pipes for the Gravity Main is from a factory run by the Indo-Norwegian Foundation at Chavara 12 miles of pipe line still remain to be manufactured and supplied Similarly the pumps and other equipment are also due from them It may take more than a year for their part of the work to be completed. Meantime, work is in progress in strengthening the Sasthamcottah lake bund to meet the increased storage for the Water Supply Scheme, the construction of the 3 R C Reservoirs in Quilon town and pipe laying work, both in the Gravity Main and Distribution System.

4 Kottayam Water Supply Scheme.

20 This scheme provides for water supply from an infiltration gallery from the bed of a river from Peroor, 5 miles from Kottayam. The work costing Rs 57 5 lakhs was approved by the Ministry of Health in 1955 This is a spill-over scheme. The work of the infiltration gallery, laying of the pumping main, construction of the reservoir and laying of the Distribution system, have all been taken up simultaneously and work is in full swing.

5. Ernakulam-Mattancherry Drainage Scheme.

21. The work costing Rs. 171·23 lakhs was approved by the Ministry of Health in 1954 The Construction of sewage Treatment Plant which can be·used also for treatment of night soil, was sanctioned towards the end of the First Five Year Plan, to be taken up as a first step. The work is nearing completion. It is expected to take up the Underground Drainage Scheme for Ernakulam town, zone by zone, according to the availability of funds so that each zone when completed may be brought into service and connected on to the Sewage Treatment works, which are already completed.

6. Trivandrum Drainage Scheme, Block 'B'.

22 The work is estimated to cost Rs. 36·9 lakhs. This is a Corporation Scheme for which a loan of Rs. 25 lakhs has been sanctioned by the Government of India, Ministry of Health.

6. KHADI AND VILLAGE INDUSTRIES

23. The Government of Kerala have constituted the Kerala Khadi and Village Industries Board under the Kerala Khadi and Village Industries Board Act to implement the schemes relating to Khadi and Village Industries. The Board came into existence on first August 1957. Consequently the schemes have been taken out of the State Plan, except that relating to Administration. The schemes for each year are being implemented in accordance with the approval of the Khadi and Village Industries Board

24. Prior to the constitution of the Board, the schemes under Khadi and Village Industries were being implemented by the Department of Industries There was an Advisory Khadi and Village Industries Board also.

25. During 1956-57 the following allotments were made by the State Government

		Rs.
1.	Advance for Spinning Instructors' training to be given to the institutions ..	13,500
2.	Advances for starting dye house ..	6,580
3.	Grant and loans to Gramodyog depots ..	10,000
4.	Amber Charka purchase ..	25,000
5.	Khadi weaving at Payyannur ..	33,500
6	Purchase of Teak-wood, metal parts, etc. for Amber Charka manufacture ..	1,00,000

			Rs.
7	Hand pounding of rice	..	12,350
8.	Village Oil Industry	..	21,150
9	Hand-made paper	...	21,250
10.	Bee-keeping	..	14,100
11.	Sales Emporia	..	1,08,000

26 During the year 1957-58 the following allotments were made by the State Government

			Rs
1	Village Pottery	..	10,000
2.	Village Oil	..	13,000
3	Soap Making with non-edible oil	..	5,000
4	Cottage match	..	5,000
5	Hand-pounding of rice	..	5,000
6.	Hand-made paper	..	5,000
7.	Marketing	.	50,000
8	Village leather	..	5,000
9.	Sales Emporia		50,000
10	Bee-keeping	.	28,200
11.	Palmgur Development scheme	.	95,000
12	Grants to khadi Co-operative Societies	.	10,000
13	Amber Programme		90,850
14.	Khadi Extension scheme	.	28,850
15	Jeep	.	15,000
16.	Exhibitions and competitions	.	3,000
17.	Dye House	..	3,300
18.	Kerala Khadi & Village Industries Board		45,000
19.	Gramodyog Depot		4,000

27 During the same year the Khadi and Village Industries Commission sanctioned to the Board the following financial assistance

		Grant Rs.	*Loan* Rs.
Bee-keeping	.	26,450	5,000
Palm Gur	.	26,950	.
Village Oil	..	53,750	1,27,250
Amber programme	..	38,600	..
Gur Khandsari	..	8,400	..
Soap	..	25,250	25,250
Hand-pounding	..	6,650	15,000
Matches.			

28. The following tentative allocations have been made by the Khadi and Village Industries Commission for 1958-59 to the State Khadi Board.

		Grant Rs.	Loan Rs
Amber programme	..	7,77,200	16,00,000
Amber servicing station	..	8,000	24,000
Regional Vidyalaya	.	40,600	..
Hand-pounding of rice	..	27,760	79,000
Bee-keeping	..	1,00,400	..
Bhandars	..	31,500	..
Emporia		75,000	..
Exhibitions	..	60,000	.
Palm gur	..	1,70,700	35,630
Village Oil	..	2,23,520	3,28,000
Gur Khandsari	.	40,600	..
Hand-made paper	..	60,750	94,750
Pottery		57,980	35,500
Soap	.	53,650	94,450
Leather	..	14,250	11,190

29. At least 50 per cent of the funds at the disposal of the Board will be spent in Block areas and 15 per cent in Gramdan areas.

KHADI.

30. The Khadi scheme falls into three categories, viz.

1. Individual self-sufficiency in Khadi,
2. Regional self-sufficiency; and
3. Commercial Khadi.

1. Individual self Sufficiency.

31. This scheme emphasises self-production for self-consumption. People will be encouraged to be self-sufficient in cloth by meeting 75 per cent of weaving charges or Re. 0.31 per sq yard whichever is less, and by giving Re. 0.12 per sq. yard of cloth woven to institutions which get the Swavalambi yarn.

2. Regional Self-Sufficiency.

32. This is the intensive scheme which seeks to make selected areas self-sufficient in cloth.

3. Commercial Khadi.

33 This aims at production for sale on a commercial basis.

SPINNING COMPETITION.

34 Spinning competitions on local, regional and State basis will be conducted for promoting proficiency in spinning.

1. Spinning classes in Jails

35. Prisoners are taught spinning.

2. Rehabilitation of Weaver families.

36 Rehabilitation of weavers in areas where spinners are in abundance is encouraged by giving a grant of Rs 500 to each family of weavers The grant will be utilised for purchasing new looms for getting the same fitted and for payment of wages till production is started at the new centre

3 Salesmanship in training

37 A few persons will be trained in salesmanship under the refresher course conducted by the Khadi and Village Industries Commission in Bombay

4 Honorarium for promotion of Spinning

38. The scheme provides for the following —

(a) Honorarium for introducing a Charka	Re 1
(b) Scholarship per trainee	Rs 5
(c) Commission on the yarn production at 12 nP per Seer of 80 tolas up to a maximum of Re. 1	Re. 1
(d) Subsidy to cover the loss in prices of yarn spun at 50 nP. per seer of 80 tolas upto a maximum of 8 Seers	Rs 4
Total	Rs. 11

5. Exhibitions.

39. Khadi and Village Industries exhibitions will be organised in different parts of the State.

6. Khadi Bhandars and Emporia.

40. For the promotion of sales of Khadi and Village Industries products a number of depots will be started in different parts of the State

7. Ambar Charka.

41. Training will be given to 10000 persons during 1958-59 and four additional servicing stations will be set up. Attempt will be made to organize at least one Parishramalaya in each Block. Training will be given to 200 persons in Khadi weaving.

VILLAGE INDUSTRIES.

1. Bee-keeping.

42 The following will be the main features of the scheme.

i. Scientific collection and marketing of wild honey.
ii. Formation of Co-operatives
iii Training of field men and apiarists.
iv. Training in schools in bee-keeping
v Starting of sub-stations and area offices.
vi Production and marketing of honey.

2 Cottage Match.

43 In addition to 50 cottage industry 'D' class units in the State, 15 units more will be started in 1958-59. In each 'D' Class factory, 25 gross matches will be produced per day.

3. Village Pottery

44 The programme under village pottery consists of (1) supply of equipments such as improved potteries' wheels, wooden moulds, (2) production programme—common worksheds—loan for purchase and sale and model production centre, (3) marketing programme, (4) training programme.

4. Non-edible oil—Soap making.

45. Manufacture of soap using non-edible oils will be encouraged by giving production subsidies and setting up new production units.

5. Village Tanning.

46. Steps will be taken to introduce improved methods of flaying and tanning.

6. Village Oil

47 The scheme envisages the supply of improved ghanies, granting of loans and grants for stocking of oil-seeds, marketing, etc.

7. Palmgur Development.

48. The improved methods of manufacture of Palmgur will be demonstrated and introduced in Palmgur Co-operative Societies in different parts of the State. The programme provides for the establishment of propaganda units, production units, issue of subsidies to tappers, construction of improved furnaces, supply of firewood at subsidised rates, compassionate provision for fatal accidents, etc.

8 Hand-made paper

49. Small hand-made paper units each capable of producing 20 lbs of high grade paper by utilising rags or cane produce 50 lbs. of utility paper will be started. Loans and grants will be given to these institutions to take up the work.

9. Hand-pounding of rice.

50 Grants and loans will be given for purchase of improvement implements and for stocking of paddy Production subsidy will also be given.

10 Gur Khandsari.

51 In 1958-59 three units will be introduced for manufacture of Gur and Khandsari on scientific and on cottage industry basis.

SECOND FIVE YEAR PLAN, KERALA

APPENDICES

APPENDIX II—PHYSICAL AND FINANCIAL TARGETS

Sl No	Name of Scheme	Physical target		Financial target (Rs in lakhs)	Remarks
		Unit	Target		
(1)	(2)	(3)	(4)	(5)	(6)
	I—AGRICULTURE AND COMMUNITY DEVELOPMENT				
	A. Agricultural Programmes				
	1 AGRICULTURAL PRODUCTION				
1	Reorganisation of the Department of Agriculture			18 01	
2	Scheme for the establishment of Seed Farms	Seed Farm	One Farm for each District	14 00	
3	Arecanut Research and Development	Research station	2	10 80	
4	Development of Horticulture—Expansion of Nursery Section	Model Orchards	One in each District	19 09	
5	Scheme for the distribution of Agricultural machinery—Pump sets and Tractors			• 2.10	
6	Plant protection, Control of pests and diseases	Spraying (Palms)	2 5 lakhs	17.00	
7	Distribution of Fertilizers			24.00	

APPENDIX II—(contd)

Sl No	Name of Scheme	Physical target		Financial target (Rs. in lakhs)	Remarks.
		Unit	Target		
(1)	(2)	(3)	(4)	(5)	(6)
8	Miscellaneous Research Schemes		.	2.25	
9	Distribution of improved paddy seeds			8.25	
10	Distribution of green manure seeds			1 00	
11	Scheme for the development of local manurial resources		..	5 03	
12	Development of Cashewnut	Area (acres)	5000	2.87	
13	Development of sugarcane	do	18000	8 36	
14	Development of cocoanut—				
	(a) Demonstration plots	Nos	224	9 43	
	(b) Supply of seedlings	do	7 lakhs		
	(c) Propaganda				
15	Puncha Dewatering Scheme			10.00	
16	Comprehensive spraying scheme for the control of cocoanut diseases	Spraying (trees)	160 lakhs	12.87	
17	Increasing production of oil seeds—Groundnut and sesamum	.		0 60	
18	Improvement of Lemongrass Research Station	Station	1	0.72	
19	Cultivation and research on ginger	Research station	1	0 30	Excluding share of I.C.A.R. ie. Rs. 0.24 lakh
20	Cardamom research station	Station	1	1 09	Excluding share of I C.A.R i.e. Rs. 0.64 lakh

21	Development of pepper		.	5.46	
22	Pepper Research Station	Station	1	1.53	
23	Soil testing Laboratory	Lab	1	0.39	The Laboratory will be attached to the Agl College.
24	Agricultural College and Research Institute	Students	80 per year	31.75	
25	Strengthening of Agricultural Marketing Staff			3.23	
26	All India Market News Service	..		0 72	
27	Agricultural Information Service			4 43	
28	Extension Training—				
	(1) Extension Training Centre	Centre	1	4.70	
	(2) Basic Agricultural School	School	1	3 81	
	(3) Group Level workers' Wing	Wing (B Type)	1	0 74	
	(4) Village Youth Centre	Centre	1	0.76	
	(5) Refresher Course for Village Level Workers	Centre	1	0 48	
29	Supply of lime to neutralise acidity in Kari lands of Kuttanad	Tons	5000 per annum	0.75	
30	Construction of permanent bunds in the Kayal areas of Kuttanad			5 00	
31	Development of cloves, nutmegs, cinamon and camphor			1 50	
32	Establishment of hundred acres farm for intensifying research on crops other than paddy	Farms	2	7 00	
33	Lump sum provision for research			8 00	
34	Development of cardamom			0 30	
35	Establishment of demonstration plots, for the popularisation of Japaneese method of paddy cultivation	Area (acres) Demonstration plots	13 lakhs 500 per year	1 27	
36	Simple Fertiliser trials on cultivator's fields *				Provision not fixed
	Total—Agricultural production		.	249 59	

APPENDIX II—(contd)

Sl No	Name of Scheme	Physical target		Financial target. (Rs. in lakhs)	Remarks
		Unit	Target		
(1)	(2)	(3)	(4)	(5)	(6)
	2 MINOR IRRIGATION PROJECTS				
1	Medium Irrigation	Schemes Nos	34	86 08	
2	Special Minor Irrigation	Area (acres)	15000	47 60	
3	Lift Irrigation	Works (Nos)	32	28 50	
4	Minor Irrigation (Panchayats)	Works (Nos)	810	—	
		Area benefited (acres)	42000	— 72 00	
5	Ground water exploration Project—Tube wells	Nos	5	— 2 50	
	Total—Minor Irrigation Projects			236 68	
	3. ANIMAL HUSBANDRY				
1	New I C A R Schemes :—				
	(a) Cross breeding research				
	(b) Grading up of local cows—Comparative study of progenies			1 40	
	(c) Investigation into the causes of delayed maturity in Livestock			2 60	
	(d) Improvement of Desi-strains of Fowls			0 24	
				0 51	

2	Cattle shows	State shows	5	2.36
		District shows	One in each Dist. per year	
3	Supply of Mineral mixture	Tons	190	1 15
4	Veterinary Hospitals and Dispensaries	Institutions	38	5 82
5	Conversion of Stockmen stations into Dispensaries			0.56
6	Clinical laboratories	Laboratories	3	0.33
7	Starting of Artificial Insemination centres with six Key villages each			
		(a) New Key Village centres	8	13 03
		(b) Urban Artificial Insemination centre	1	
		(c) Expansion of the Palghat A I centre into a Key Village centre	1	
8	Fodder Farms	Farms	2	0 80
9	Purchase of microscopes	Microscopes	4	0 06
10	Livestock research station	R station	1	2 88
11	New poultry farms and improvement to the existing farms—			
	(a) Improvement to the existing farms	Farms	3	7 67
	(b) New farms	Farms	4	
12	All India Poultry Development Scheme	Centres	20	6 60
13	Training of Auxiliary personnel (Stockmen)	Trainees	60 per year	2 06
14	Specialised training of Officers	Officers	10	0.61
15	Administration			2.00

APPENDIX II—(*contd.*)

Sl. No	*Name of Scheme*	*Physical target*		*Financial target.*	*Remarks.*
		Unit	*Target*	(*Rs. in lakhs*)	
(1)	(2)	(3)	(4)	(5)	(6)
16	Improvement of the existing Livestock-cum-Dairy Farm			3.82	
17	Dry Stock Farm	Farms	2	4.12	
18	Goshalas			1.67	
19	Development of milk production in Urban areas			0.39	
20	Installation of pasteur sation plant	Plant	1	0.28	
21	Establishment of Cattle Breeding Societies	Society	1	0.05	
22	Control of cattle diseases	Mobile Dispensary	1	0.53	
		Veterinary Hospitals	6		
		Veterinary Dispensaries	10		
23	Scheme for the distribution of Breeding Bulls	Bulls	24	0.24	
24	Improvement to the existing Livestock Farms (Soil conservation in Hilly Regions)	Farm	1	0.40	
		Acres	300		
25	Co-operative Dairy Development			6.41	
26	Supplementary extension centres	Centres	2	1.49	
27	Subsidy to private poultry breeders	Associations	2	0.02	
28	Appointment of additional stockmen	Stockmen	6	0.25	
29	Quarters for staff in Veterinary Institution	Centres	2	0.21	

30	Electrification of Veterinary Institutions			0 01
31	Veterinary College	College	1	38.00
32	Cattle sterility Scheme	Centre	1	0.89
33	Scheme for the opening of a goat farm at Tellicherry	Farm	1	1 85
34	Scheme for the Propaganda Unit			0 85
	Total—Animal Husbandry			112.16
	4. Forests			
1	Education and training			2.84
2	Forest Engineering			4 00
3	Research and formation of Museum and Forest films			
	(a) Formation of museum with library and Research centre		1	2 85
	(b) Expansion of Silvicultural Unit		1	
4	Improvement of Game sanctuaries and formation of National Parks	Game sanctuaries National Parks	3 2	5 00
5	Afforestation (Pilot experimental scheme)	Acres	2500	4.00
6	Cashew plantation	Acres	15000	25.00
7	Expansion of planting commercial timber—			
	(a) Teak and other hardwoods	Acres	2000	1.36
	(b) Under planting			0.12
8	Development of modern technique of timber extraction and communication			2.00
9	Acquisition and development of private forests in Malabar including survey demarcation and development			40 95
10	Roads, bridges and buildings	Roads Buildings	16 217	18.00

APPENDIX II—(*contd.*)

Sl No	Name of Scheme	Physical target		Financial target. (Rs. in lakhs)	Remarks
		Unit	Target		
(1)	(2)	(3)	(4)	(5)	(6)
11	Regeneration and opening of softwood plantation including matchwood—(*a*) Regeneration	Acres	6000	7 00	
	(*b*) Softwood	Acres	3000	3 00	
12	Cashew plantation (Financial assistance)	Area (acres)	8000	12 12	
	Total—Forest			128 24	
	5. SOIL CONSERVATION				
1	Soil conservation	Area (acres) Research station	20,000 1	25 50	
	Total—Soil conservation			25 50	
	6 FISHERIES				
1	Loans to Fishing Co-operatives			10.20	
2	Supply of Fishery requisites to Fishermen			5.59	
3	Scheme for the stocking of ponds with fish			3.11	
4	Scheme for the construction of breakwaters			21.95	

5	Scheme for the introduction of Ice Plants (Ice storages and refrigerated transport)			21 55
6	Identification and guide lights		.	1 15
7	Mechanisation of small fishing craft and improvement of fishing craft			8 36
8	Research Schemes	Station	3	2.19
9	Development and exploitation of Major Reservoir Fisheries	Centres	3	0.50
10	Salt subsidy Scheme	•		9.36
11	Rural Fishery demonstration	.	.	0 63
12	Training of personnel	Nos	20 per year	1 83
13	Introduction of Power Fishing	Unit	1	2 85
14	Expansion of Fishery Technological Station	Station	1	1 00
15	Esturine Fish Farms			1 00
16	Storage sheds , Drying stands, etc			0 95
17	Fish Marketing and construction of Model Fish Markets			0 65
18	Fresh Water Acquarium	Acquarium	1	0.50
	Total—Fisheries			93 37
	7. CO-OPERATION.			
1	Reorganisation of credit—			
	(i) State Co-operative Bank	No.	1	3 21
	(ii) Central Co-operative Bank		.	0 48
	(iii) Central Land Mortgage Bank and Primary Land Mortgage Banks	Central Banks Nos. Primary Banks Nos.	2 5	0 41
	(iv) Large sized Credit Societies	Nos	300	5.50
	(v) Godowns	Nos.	75	10.45

APPENDIX II—(*contd*)

Sl. No	Name of Scheme	Physical target		Financial target (Rs. in lakhs)	Remarks.
		Unit	*Target*		
(1)	(2)	(3)	(4)	(5)	(6)
	(vi) District committees	Nos	5	0 42	
	(vii) Cost of administration staff			3 06	
	(viii) Subsidy to Primary Land Mortgage Banks			0.24	
2	Co-operative marketing and processing				
	(i) Primary Marketing Societies	Nos	30	3 71	
	(ii) Share capital	Marketing Societies	32	9 90	
	(iii) Godowns	Nos	42	16.90	
	(iv) Loans for processing			10 50	
	(v) Apex Marketing Society	Nos	1	0 15	
	(vi) Free technical staff			1 50	
	(vii) Establishment of Co-operative Societies and Warehouses for pepper *				Target not yet fixed
3	Co-operative farming—				
	(i) Farming Societies			1.03	
	(ii) Share capital	Societies	28	0 70	
	(iii) Loans			1 35	
	(iv) Grant			0 28	
	(v) Colonisation Scheme	Area (acres)	559	0.05	
	(vi) Do Loan			0.17	
	(vii) Do Grant			0.96	

No.	Item	Unit	Quantity	Amount
	(viii) Establishment of Regulated Markets			5.13
4	Co-operative Training, Education and Propaganda—			
	(i) Subordinate personnel training	Personnel	1200	5.17
	(ii) Higher and intermediate personnel training	do	100	
	(iii) Education of non-officials	do	17000	3 92
	(iv) Propaganda			0 20
5	Co-operative administration			4 75
6	Co-operative development fund			6 00
7	Relief and guarantee fund			6 00
8	Warehousing	Warehousing company	1	16 70
9	Unforseen charges			1 61
10	Pilot Scheme			0 54
	Total—Co-operation			120.99

8. AGRICULTURE—MISCELLANEOUS

1. AGRICULTURAL STATISTICS

No.	Item	Unit	Quantity	Amount
1	Estimation of area under minor crops	Sampling fraction	5 per cent	1 35
2	Survey of cultivable waste lands	Sample survey	10 per cent	2 19
3	Analysis of data from schemes (1) and (2)			1.25
4	Diognostic studies and supervision (District Statistical Offices)	District Offices	8	3 30
5	Agricultural census in Malabar			0 90
	Total—Agricultural Statistics			8 99

APPENDIX I—*contd*

Sl No	Name of Scheme	Physical target		Financial target (Rs in lakhs.)	Remarks
		Unit	Target		
1	2	3	4	5	6
	2. COLONISATION.				
1	High Range Colonisation Scheme	Area (acres) Families	40,000 8000	25 51	
2	Wynad Colonisation Scheme	Area (acres)	37,000	15 00	
3	Attapady Land Colonisation Scheme	Area (Sq miles)	280	13 50	
4	Co-operative Colonisation Scheme			4 75	
	Total—Colonisation			58 76	
	B, N. E. S. and Community Projects				
1	N E. S and Community Projects	Blocks	110	547 84	
	Total—N E. S and Community Projects			547 84	
	Total I—Agriculture and Community Development			1582 12	

II. IRRIGATION AND POWER

1 Major Irrigation

No.	Scheme		Area	Cost	Remarks
1.	Neyyar First Stage (Spill over)	area benefited (acres)	15,000	47 00	
2.	Chalakudy Irrigation Project Fist Stage (Spill over)	,,	2,84,000	13'42	The total cost of the scheme is Rs. 128.5 lakhs.
3.	Peechi Project (Spill over)	,,	46,000	24 82	
4.	Vazhani (Spill over)	,,	12,800	26 00	
5.	Mangalam Project (Spill over)	,,	6,000	46 40	
6.	Walayar Project (Spill over)	,,	8,000	20 00	
7	Malampuzha Project (Spill over)	,,	47,600	80 03	
8.	Kuttanad Development Scheme				
	(i) Spill way at Thottapally (Spill over)	,,		8.00	
	(ii) Salt water barrier at Thanneermukkom	,,	1,21,000	76 00	
9.	Neyyar Second Stage	,,	19,100	71 25	
10.	Chalakudy Irrigation Scheme Second Stage	,,	20,250	57 00	
11.	Bhothathankettu Scheme	,,	63,300	200 80	
12.	Meenakara Scheme	,,	4,100	56 34	
13.	Cheerakuzhi Scheme	,,	4,000	31.92	
14.	Pothundy Irrigation Scheme	,,	91,28	70.00	
15.	Kattampally Project	,,	5,000	25.00	
16.	Investigation of New Schemes	,,	.	9.50	
	Total—Major Irrigation			863.48	

Sl No	Name of Scheme	Physical target		Financial target (Rs in lakhs)	Remarks
		Unit	Target		
1	2	3	4	5	6
2.	POWER				
1.	Pallivasal Hydro Electric Scheme			4.80	The provision is to complete the finishing work The scheme has been completed during the 1st quarter of 1957-58
2	Sengulam Hydro Electric Scheme		..	1 83	
3.	Poringalkuthu	K W	24,000	40.00	
4	Poringalkuthu Second Stage—Installation of 4th Generating Set	,,	8,000	35 41	
5	Neriamangalam Hydro Electric Project	,,	16,200	274 00	
6.	Panniar Hydro Electric Scheme	,,	15,000	280 25	
7	Sholayar Hydro Electric Project	,,	25,000	262 02	
8.	Pamba Hydro Electric Project (I Stage)	,,	44,400	220.00	
9	Investigation of River Valley Projects	,,	.	21 75	
10.	Transmission Distribution and Rural Electrification				

I TRANSMISSION

Item	Unit	Quantity	Amount
A *Spill over works	,,	..	79 39
B. 110 K V Lines and sub stations			
(a) Double circuit 110 K V line from Chalakudy to Shoranur	Circuit Miles	38	34.20
(b) Do from Shoranur to Kozhikode	,,	55	46 75
(c) Single circuit 110 K V line from Cannanore to Kasargode	,,	52	31 20
(d) 110 K V Double circuit Alwaye to Neriamangalam	,,	45	35 86
(e) 110 K. V. Double circuit Panniar line	Circuit miles	4	4 75
(f) 110 K V. Single circuit line from Alwaye to Shoranur	,,	50	10 69
(g) 110 K V. Single circuit line from Sholayar to Poringalkuthu	,,	12	10 64
(h) Double circuit 110 K. V line from Chalakudy to Alwaye and Sub station at Chalakudy	,,	18	21 37
(i) 110 K V Double circuit line to FACT and Sub station	,,	2	4 00
(j) 110 K. V Alwaye Sub Station			32.30
(k) 110 K V. Sub station at Kozhikode		..	18.60
			250 36
C. 66 K V Lines and Sub stations			
(a) 66 K V. line (Single circuit) from Trichur to Shoranur	,,	18	7.20
(b) Do Shoranur to Palghat	,,	25	10.00
(c) 66 K V Sub station at Kozhikode	Sub station	1	11.84
(d) Do. at Shoranur	,,	1	15.00
(e) Do at Palghat	,,	1	12 20
(f) Do at Malapuram	,,	1	9 30
(g) Do at Cannanore	,,	1	15 20
(h) Do at Kasargode	,,	1	5.31
			86.05

Sl No	Name of Scheme	Physical target		Financial target (Rs. in lakhs)	Remarks
		Unit	Target		
1	2	3	4	5	6
D	Load Dispatch and Carrier Communications			14 25	
E	Increasing Capacity of Transformers in existing Stations			19 00	
F	Staff and Training of Staff			5 70	
G	Miscellaneous Works			2 14	
H	Compensation for Nationalisation of licensees undertakings in Malabar			26 00	
	Total I—Transmission			482 89	
II.	DISTRIBUTION AND RURAL ELECTRIFICATION				
A.	Distribution Scheme				
1	Connecting up new consumers	Nos	1,05,260	157.89	
2.	Installation of street lights	,,	50,595	50.60	
3.	Increasing capacity of Transformers in strengthing of feeders in existing centres	,,		83.10	
B.	Rural Electrification Scheme				
1	Opening of New Centres	,,	1 344	403.20	
2.	Civil Works			27.74	
	Total II—Distribution and Rural Electrification		..	722 53	

Item		Unit	Target	Amount
Total—Power				2345.48
Total II—Irrigation and Power	.		.	3208.96
III. INDUSTRY AND MINING				
1 MAJOR INDUSTRIES —PRIVATE SECTOR				
1. Synthetic Corundum Factory	..	No	1	4.75
2. Sand Lime Bricks Factory		,,	1	4 75
3. White Cement Scheme of Travancore Cements				14 25
Total—Major Industries—Private Sector	.			23.75
2. MAJOR INDUSTRIES—PUBLIC SECTOR				
1. Ceramic Factory—China Clay Scheme			..	2.38
2. Travancore Rubber Works				
(i) Modenisation and expansion of production programme of Cycle Tyres etc.				9 50
(ii) Manufacture of Cycle rims	..	Rims	6 lakhs per annum	6.65
(iii) Enhancing capacity of Cycle tyres and tubes production	..			12.00

3-1305

Sl No	Name of Scheme	Physical target		Financial target Rs. in lakhs.	Remark
		Unit	Target		
1	2	3	4	5	6
3.	INDUSTRIAL ESTATES				
1	Industrial Estates	Nos	9[illegible]	81 95	
	Total—Industrial Estates			81 95	
	Total—Major Industries—Public Sector			112 48	
4	SMALL SCALE INDUSTRIES				
1	Chain Stores	Nos.	9	11 60	
2	Model blacksmithy unit	,,	2	3 63	
3	Model Carpentry unit	,,	2	3 98	
4	Model Foot wear unit	,,	2	3 68	
5.	Model Sports goods manufacturing unit	,,	1	2.00	
6	Manufacture of holdalls	Unit	1	2 39	
7.	Manufacture of barbed wire	,,	1	4 21	
8.	Manufacture of Furniture, Door & Window frames	,,	2	1 96	
9.	Foundry	,,	1	3 35	
10.	Manufacture of Cycle Valves	,,	1	1.29	
11.	Manufacture of Hardware fittings	,,	2	2 07	
12.	Cycle parts	,,	2	2 79	
13.	Wood work and Carpentry	,,	2	2.78	

No.	Item	Unit	Number	Amount
14	Tannery—production—cum Training Centres	,,	2	3 23
15.	Production cum Training Centres Glazed pottery at Changanacherry	,,	1	1 66
16.	Locks manufacture and Blacksmithy	,,	2	2 42
17	Precision Instruments	,,	1	3 01
18.	Plastic Industry	,,	1	0 75
19.	Glass Bangles and Beads Training Centre, Kasargod	Unit	1	2 19
20	Cloth printing and dyeing Centre at Kottarakara	,,	1	1.10
21.	Bell metal Industry	,,	1	1 47
22.	Cultery Service Centre	,,	1	0 73
23.	Cart wheel hub manufacturing Centre	,,	1	0 50
24.	Toy making	,,	1	0 72
25.	Combined Carpentry and Blacksmithy unit Kozhikode	,,	1	4 89
26.	Wood seasoning Plant at Kozhikode	,,	1	2 81
27.	Lacquer Industry	,,	1	0.72
28.	Foot wear Service Centres	,,	1	3 42
29.	Ceramic Service Centre, Cannanore	,,	1	3 94
30.	Loans to Small scale Industries			20 50
31.	Central Instruments Work Shop	,,	1	2 00
32.	Import and manufacture of Small Industry machines	,,	1	3 50
33.	Machine Shop at Neyyattinkara	,,	1	1.69
34.	Smithy at Neyyattinkara	,,	1	2 50
35	Carpentry at Vazhimukku, Neyyattinkara	,,	1	1.25
36	Aid to Industrial Co-operatives and Industrialists	Nos.	10	5.00
37	Tile Factory			0.80
38.	Manufacture of Electrical accessories at Neyyattinkara			0 75
39.	Neon Signs	Unit	1	0.50
40.	Service Workshops and Metal Industries in Industrial Estates		2	12.00

Sl. No.	Name of Scheme	Physical target		Financial target (Rs in lakhs)	Remarks
		Unit	Target		
1	2	3	4	5	6
41.	Straw Board Factory .		2	3.00	
42.	Manufacture of Auto rickshaws . .	Unit	1	3.20	
43.	Village Workshops in N. E. S. Blocks .	Nos	30	15.00	
44.	Fruit preservation scheme				
	(i) Canning and manufacture of preservation . .	Factories	2 }	2 10	
	(ii) Loans to enterprises in fruit preservation . .	,,			
45.	Controlled credit scheme for Small Scale Industrial financing entrepreneurs		.	15.00	
46.	Quality control . .	Unit	1	2.00	
47.	Nuts and Bolts . .	,,	1	1.50	
48.	Coconut pith Industry . .	,,	5	2 50	
49.	Printing unit in the Pilot Project, Netyattinkara .		.	0 50	
50.	Aid to Food preservation by way of loans in Neyyattinkara Pilot area	.	.	0 30	
51.	Social Welfare Schemes . .	Unit	6	3 50	
	Total—Samll Scale Industries .		. .	178 38	
5	HANDLOOM DEVELOPMENT				
1.	Promotion of marketing and publicity . .			4 47	
2.	Issue of loans . .			20 00	
3.	Opening of dye houses .	Nos.	20	3 69	
4.	Establishment of Pattern Weaving Factories	No	1	0 38	

5. Organisation of Industrial Co-operatives	.	Nos.	12	20.00	
6. Training of Weavers		Nos.	200	0 60	
7. Research and Technique	..			4.00	
8. Sanction of Rebate	..			55.49	
9 Cotton Spinning Mill		No	1	48.05	
10. Research and experimental cum Training Centre				3.32	
Total—Handlooms	..	.		160.00	
6. Khadi and Village Industries					
Khadi and Village Industries—Administration	..			9 81	Entire cost of the schemes approved by Khadi and Village Industries Commission excluding the cost of administration will be met by the commission.
Total—Khadi and Village Industries	..	.		9.81	
7. Handicrafts					
1. Service cum Training Centre for Bell Metal Industry	.	Centre	1	0.62	
2. Dyeing and printing	..	,,	1	0.80	
3. Production cum Training Centre for development of Cane Industry			1	0.48	
4 Service cum Training Centre for Art metalware	..	Centre	1	0.57	
5. Service cum Training Centre for Bamboo articles	..	.	1	0 73	
6. Horn, wood and Ivory Carving Industry	..		..	1.08	
7. Training Centre for Mat weaving screw pine and Kora gross		..		0 80	
8. Training Centre for Toy and doll making	..	..	..	0 80	
9. Palmyrah Leaf Industry	..	Centre	1	0.36	
10. Training Centre for Cane, Rattan, Bamboo and Reed	..			1.76	

Sl. No	Name of Scheme	Physical target		Financial target (Rs in lakhs)	Remarks
		Unit	Target		
1	2	3	4	5	6
11	Training Centre for Fibre Industry	Centre	1	0 84	
12.	Brass Copper and Bell metal Industry		..	0 92	
13.	Lace and embroidery (Training in lace and embroidery)			0 76	
14.	Dyeing and printing			0 30	
15	Papier Mache Industry			0 80	
16	Conch shell Industry			0 60	
17	Lacquerware Industry			0 84	
18	Tailoring and garment making			0 84	
19.	Organisation of Societies			4 80	
20	Opening of emporia	Nos	3	3 00	
21	Multipurpose Work Centres	Nos	5	1 78	
22	State wide Scheme (Exhibition and Competition)			0 30	
	Total—Handicrafts			23 78	
8	SERICULTURE				
1.	Sericulture			5 13	
	Total—Sericulture			5 13	

Item	Unit	Quantity	Amount
9. Rural Industrialisation			
1. Rural Industrialisation		..	20.65
Total—Rural Industrialisation			20.65
10. Coir Development			
1. Primary Societies	Nos	240	88 50
2. Thondu Societies	,,	37	12.20
3. Central Marketing Societies	,,	3	25.00
4. Coir Mats and Mattings Societies	,,	8	8.80
5. Rope Manufacturing Factory Societies	,,	2	6.50
6. Co-operative Union	,,	15	1.50
7. Departmental cost		..	7.50
Total—Coir Development			150 00
Total III—Industry and Mining			683.98

IV. TRANSPORT AND COMMUNICATIONS

1. Roads

Item	Unit	Quantity	Amount
1. Roads Minor Bridges and Culverts			
A Roads (i) Special surfacing	Miles	312	214.63
(ii) Improving and Upgrading	,,	639	
(iii) New Roads	,,	196	
B Bridges and Culverts	Nos	95	

Sl. No.	Name of Scheme	Physical target Unit.	Target.	Financial target. (Rs. lakhs)	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)
2	Village Roads (Panchayats) (a) Improvement	Miles	1000	70 14	
	(b) Construction	,,	500		
3.	Bridges (Major Bridges)	Nos	84	193.21	
	Total—Roads			477.98	
2.	ROAD TRANSPORT				
1.	Road Transport				
	(a) Rehabilitation			66 50	
	(b) Expansion				
	Total—Road Transport			66 50	
3.	TOURISM				
1.	Tourism			12.80	

Total—Tourism	. .	. .	12.80	
Total IV—Transport and Communications	. .	. .	557.28	

V. SOCIAL SERVICES

1. Education

GENERAL EDUCATION.

1. Revision of salary of Primary School teachers			95.00	
2. Revision of salary of Secondary School teachers			15.00	
3. Provision of mid-day Meals			40.00	
4. Hindi Teachers Training	Teachers	600	12.78	
5. Revision of pay of Hindi Teachers		. .	11.00	
6. Craft Training for Teachers	Teachers	260	0.86	
7. Audio Visual Education	Training for Teachers	250	5.65	
8. Refresher courses and Seminars for teachers and Technical personnel			2.95	
9. Medical Inspection	centres	200	5.70	
10. National Cadet Corps	troups	100	12.86	
11. Auxiliary Cadet Corps	troops	210	3.79	
12. Scouting and Guiding			1.18	Centrally sponsored Scheme the Central share being Rs. 1.19 lakhs
13. Grants to Dance Drama, and Music Associations			4.00	

Sl No	Name of the Scheme	Physical target		Financial target	Remarks.
		Unit.	Target	(Rs. lakhs.)	
(1)	(2)	(3)	(4)	(5)	(6)
14	Sports and Games Association			2.87	Centrally Sponsored Scheme the Central Share is also Rs. 2.87 lakhs
15.	Production of Children's Literature	(a) New Books (b) Copies of books	100 10,00,000	1.42	
16	Educational Publications Magazines and Bulletins			0.24	Centrally Sponsored Scheme the Central Share being Rs. 0.23 lakhs.
17.	Sangeeth Natak Akadami	Model Regional Theatre	1	4.00	
18.	Training of Guidance Officers	Officers	150	0.62	
19.	Post Graduate Basic Training College	College	1	4.89	
20	State Central Library	Library	1	6.93	
21.	S. S. T Academy type of Schools	Schools Nos	4	1.57	
22.	Drawing and Painting School			1.12	
23	Text-book Publication—Site and Building	Stores	4	3.11	
24	Educational Bureau and Research Section	Bureau Section	1 1	2.49	
25	School of Dancing	School	1	1.98	
26	S S T. Academy of Music—Additional facilities			0.47	
27.	Nursery Training School	School	1	0.30	

28	Nursery Schools	Schools	200	10 00	
29.	Stadia	Nos	8	3 50	Centrally Sponsored Scheme the Central Share being Rs 3 50 lakhs
30	Provision of facilities in Primary and Basic Schools Buildings Sites etc			90.00	
31.	Multipurpose Schools—facilities for teaching Science and Improvement of Libraries				
	(a) Multipurpose Schools (except schools with technical Courses)	Schools	46	85.00	
	(b) To Improve facilities for teaching science	Schools	257		
	(c) Improvements of Libraries	Schools	226		
	(d) Improvement of Libraries of Multipurpose Schools	Libraries	45		
32	Opening of Secondary Schools	Schools	100	28 00	
33	Opening of Middle Schools	Do.	167	26.00	
34	Middle School Buildings	New Schools	44	14 00	
		Additional Schools	148		
		Renovation	58		
35.	High School Buildings	Renovation	50	28.00	
		Additional accommodation	96		
36.	Teaching of Craft in Schools			33 72	
37	Higher Secondary Schools with Technical Courses	Schools	11	51 44	The provision is exclusive of the Central Share of Rs. 5.58 lakhs
38.	Quarters for Teachers	Nos	200	18.88	
39.	Special Schools	Schools	5	7.16	
40	Libraries and Reading Rooms	Libraries	20	12.62	

Sl. No.	Name of Scheme	Physical target		Financial target	Remarks
		Unit	Target.	(Rs. lakhs)	
(1)	(2)	(3)	(4)	(5)	(6)
41	Basic Training Schools			15 28	
42.	Residential Schools	Nos	3	15 00	
43	Provision of buildings consequent on the abolition of shift system	Additional class rooms	1070	30.00	
44.	Printing Press for Text Books	No	1	5 00	
	Total—General Education			716.38	
	Collegiate Education				
45	Advanced Research and Post Graduate Studies in Maharaja's College, Ernakulam			* 10 50	
46	Physical Education Colleges			4 90	
47	Hostel accommodation -- Maharaja's College, Ernakulam			3 80	
48	Degree Courses in Science-Government College, Chittur			4 75	
49.	Additional facilities-Government Training College Trichur and Training College Hostel			1 99	
50	Government College, Chittur—Hostel			1 66	
51.	Victoria College Palghat—Post Graduate Course			10 00	
52	Government Brennen College, Tellicherry			10 00	
53	Government Training College, Tellicherry	No	1	3 00	
54	Government Colleges	Nos	3	15 00	

	Item	Unit	Target	Outlay
55.	University			14.25
	Total—Collegiate Education			79 85

Technical Education

	Item	Unit	Target	Outlay
1.	Polytechnic			
	(a) Central Polytechnic and Polytechnics			22 65
	(b) Grant-in-aid to Polytechnics in Quilon, Pandalam, Alagappanagar, Thriprayar and Alleppey			15 00
	(c) Maharaja's Technological Institute, Trichur			3 92
	(d) Government Polytechnic, Kalamassery			4 00
	(e) Polytechnic, Kozhikode			1 40
2	Junior Technical Schools	Schools	18	112.00
3.	Engineering Colleges			
	(a) Engineering College at Trichur			30 00
	(b) Development of Engineering College at Trivandrum			4 00
	(c) Expansion of Training Capacity in Engineeing College , Trivandrum			5.00
	(d) Grant-in -aid to two Engineering Colleges to be opened in Quilon and Palghat 'Cannanore			14 00
	(e) Post-Graduate Course in Engineering			3 00
4	Kerala Polytechnic, Kozhikode			4 47
5.	Industrial School, Cannanore			14.48
6.	Occupational Institutes	No.	3	3 27
	Total—Technical Education			237 19
	Total—(1 Education)			1033 42

Sl No	Name of the Scheme	Physical target		Financial target	Remarks.
		Unit	Target	(Rs lakhs)	
(1)	(2)	(3)	(4)	(5)	(6)
	2. Medical				
1.	Starting of New Dispensaries	Dispensary	50	16 52	
2	Additional Wards, better equipment to existing Dispensaries	,,	121	16 78	
3	Installation of Deep X-ray	No	1	7 00	
4	Improvements to Major Hospitals	No	8	55 50	
5	Construction of quarters	No	57	21 40	
6.	Leprosy Hospitals and Clinics	Additional Beds Clinics	820 1	24 00	
7.	T. B Hospitals and Clinics				
	(a) Increase in bed strength in T B. Isolation Wards	Additional Beds	630	21 88	Centrally Sponsored Scheme, Central Share being Rs 7.87 lakhs
	(b) T. B Clinics	Clinics	11	22 50	
	(c) Increase of Bed strength in T B Hospitals	Additional Beds	804	44 68	
8	Improvement to Taluk Head-quarters, Hospitals	Hospitals	15	28 90	
9	Subsidiary Centre for Leprosy	Centres	11	23 05	
10	Improvement to Mental Hospital Kozhikode			5 00	
11.	Opening of Dental Clinics	Clinics	5	3 00	
12	Opening of V D. Clinics			5 00	

No.	Scheme	Unit	Target	Outlay	Remarks
13.	Provincialisation of Doctors in L F. and Municipal Institutions	Doctors	5	0 35	
14.	(i) Medical College, Trivandrum			41 49	
	(ii) Medical College, Kozhikode				
15.	Integration of Public Health with Basic Course in Nursing			1 78	
16.	Post-graduate training in Public Health			3 20	Centrally Sponsored Scheme
17	Laboratary Technician's Training Scheme			0 53	
18.	Dental College			2 65	
19.	Establishment of a Paediatric Centre in the Medical College			3 52	
20	Establishment of Social and Preventive Medicine Department			0 85	
21	Starting of Children's Home for Leprosy			1 00	
22.	Starting of Nurses Training Centre at Kozhikode			2 50	
23	Training of Refractionists and Opticians			1 30	
24	Training of Laboratory Assistants			0.90	
25.	Training of teachers for the Medical Colleges			1.50	
26	Construction of Isolation Blocks attached to Medical College, Hospital			1.00	
	Total—Medical			362.78	

3. Public Health

No.	Scheme	Unit	Target	Outlay
1.	Primary Health Units	Centres	90	56 73
2	Secondary Health Units			16.95
3	Maternity — Homes	Homes	18	17 00
4.	Maternity and Child Health Centres	Centres	320	28.67

Sl. No.	Name of the Scheme	Physical target		Financial target (Rs lakhs)	Remarks
		Unit	Target		
(1)	(2)	(3)	(4)	(5)	(6)
5.	Family Planning	,,	70	9 00	Centrally Sponsored Scheme Central Share being Rs 4 50 lakhs
6.	School Medical Inspection			0.50	
7.	Environmental Hygiene	Slabs (distribution)	3500	0 75	
8	Health Education	Education Teams	1	1 50	
9.	Organisation of Women Medical Officers for M C. H Work	M.C H Organisations	4	3 23	
10.	Registration of Births and Deaths			10 21	
11.	Training Scheme for Public Health Wing				
	(a) Training of Midwives	Nos.	452	6 60	
	(b) Health Visitors for Family Planning	Nos	50		
	(c) Training for Lady Doctor in D M and C. W Course	Nos	4		
	(d) Refresher Course for Midwives	,,	250		
	(e) Health Visitors for General Health Work	,,	77		
12.	National Malaria Eradication				
13.	National Filaria Control	Central Unit	4	72 40	
		Survey Unit	2		
		Control Units	10		
14.	Public Health Administrative Staff			1.85	

	Total—Tourism		..	12 80	
	Total IV—Transport and Communications			557 28	

V. SOCIAL SERVICES

1. Education

GENERAL EDUCATION

No.	Item	Unit	Target	Outlay	Remarks
1.	Revision of salary of Primary School teachers			95 00	
2.	Revision of salary of Secondary School teachers			15.00	
3	Provision of mid-day Meals			40 00	
4	Hindi Teachers Training	Teachers	600	12 78	
5.	Revision of pay of Hindi Teachers			11 00	
6.	Craft Training for Teachers	Teachers	260	0 86	
7.	Audio Visual Education	Training for Teachers	250	5.65	
8.	Refresher courses and Seminars for teachers and Technical personnel			2.95	
9.	Medical Inspection	centres	200	5 70	
10	National Cadet Corps	troups	100	12 86	
11	Auxiliary Cadet Corps	troops	210	3 79	
12.	Scouting and Guiding			1.18	Centrally sponsored Scheme the Central share being Rs 1.19 lakhs
13.	Grants to Dance Drama, and Music Associations			4.00	

Sl. No.	Name of the Scheme	Physical target		Financial target	Remarks.
		Unit	Target	(Rs. lakhs.)	
(1)	(2)	(3)	(4)	(5)	(6)
14	Sports and Games Association			2.87	Centrally Sponsored Scheme the Central Share is also Rs. 2 87 lakhs
15.	Production of Children's Literature	(a) New Books (b) Copies of books	100 10,00,000	1 42	
16.	Educational Publications Magazines and Bulletins			0 24	Centrally Sponsored Scheme the Central Share being Rs. 0.23 lakhs.
17.	Sangeeth Natak Akadami	Model Regional Theatre	1	4.00	
18.	Training of Guidance Officers	Officers	150	0 62	
19	Post Graduate Basic Training College	College	1	4 89	
20	State Central Library	Library	1	6 93	
21	S S T. Academy type of Schools	Schools Nos	4	1 57	
22.	Drawing and Painting School			1 12	
23.	Text-book Publica.ioi —5 tc and Building	Stores	4	3 11	
24.	Educational Bureau and Research Section	Bureau Section	1 1	2.49	
25	School of Dancing	School	1	1 98	
26	S S T Academy of Music—Additional facilities			0 47	
27.	Nursery Training School	School	1	0 30	

28	Nursery Schools	Schools	200	10 00	
29.	Stadia	Nos	8	3 50	Centrally Sponsored Scheme the Central Share being Rs 3 50 lakhs
30	Provision of facilities in Primary and Basic Schools Buildings Sites etc			90 00	
31.	Multipurpose Schools—facilities for teaching Science and Improvement of Libraries				
	(a) Multipurpose Schools (except schools with technical Courses)	Schools	46		
	(b) To Improve facilities for teaching science	Schools	257	85.00	
	(c) Improvements of Libraries	Schools	226		
	(d) Improvement of Libraries of Multipurpose Schools	Libraries	45		
32.	Opening of Secondary Schools	Schools	100	28.00	
33.	Opening of Middle Schools	Do	167	26 00	
34	Middle School Buildings	New Schools	44		
		Additional Schools	148	14 00	
		Renovation	58		
35	High School Buildings	Renovation	50		
		Additional accommodation	96	28.00	
36.	Teaching of Craft in Schools			33 72	
37.	Higher Secondary Schools with Technical Courses	Schools	11	51.44	The provision is exclusive of the Central Share of Rs. 5 58 lakhs
38	Quarters for Teachers	Nos.	200	18.88	
39.	Special Schools	Schools	5	7 16	
40	Libraries and Reading Rooms	Libraries	20	12.62	

Sl No	Name of Scheme.	Physical target		Financial target	Remarks.
		Unit	Target	(Rs lakhs)	
(1)	(2)	(3)	(4)	(5)	(6)
41	Basic Training Schools			15.28	
42	Residential Schools	Nos.	3	15.00	
43.	Provision of buildings consequent on the abolition of shift system	Additional class rooms	1070	30 00	
44.	Printing Press for Text Books	No	1	5 00	
	Total—General Education			716 38	
	Collegiate Education				
45	Advanced Research and Post Graduate Studies in Maharaja s College, Ernakulam			10 50	
46	Physical Education Colleges			4 90	
47.	Hostel accommodation—Maharaja's College, Ernakulam			3 80	
48	Degree Courses in Science-Government College, Chittur			4 75	
49.	Additional facilities-Government Training College Trichur and Training College Hostel			1 99	
50	Government College, Chittur—Hostel			1 66	
51.	Victoria College Palghat—Post Graduate Course			10 00	
52	Government Brennen College, Tellicherry			10 00	
53	Government Training College, Tellicherry	No	1	3 00	
54.	Government Colleges	Nos	3	15 00	

Item			Amount
55. University			14.25
Total—Collegiate Education			79.85

Technical Education

Item			Amount
1. Polytechnic			
(a) Central Polytechnic and Polytechnics			
(b) Grant-in-aid to Polytechnics in Quilon, Pandalam, Alagappanagar, Thripravar and Alleppey			22 65
(c) Maharaja's Technological Institute, Trichur			15 00
(d) Government Polytechnic, Kalamassery			3.92
(e) Polytechnic, Kozhikode			4.00
2. Junior Technical Schools			1 40
3. Engineering Colleges	Schools	18	112.00
(a) Engineering College at Trichur			
(b) Development of Engineering College at Trivandrum			30 00
(c) Expansion of Training Capacity in Engineeing College, Trivandrum			4 00
(d) Grant-in -aid to two Engineering Colleges to be opened in Quilon and Palghat, Cannanore			5 00
(e) Post-Graduate Course in Engineering			14 00
4. Kerala Polytechnic, Kozhikode			3 00
5. Industrial School, Cannanore			4.47
6 Occupational Institutes			14 48
	No.	3	3 27
Total—Technical Education			237 19
Total—(ı Education)			1033·42

Sl. No	Name of the Scheme	Physical target		Financial target. (Rs lakhs)	Remarks.
		Unit	Target		
(1)	(2)	(3)	(4)	(5)	(6)
	2. Medical				
1.	Starting of New Dispensaries	Dispensary	50	16 52	
2.	Additional Wards, better equipment to existing Dispensaries	,,	121	16 78	
3	Installation of Deep X-ray	No	1	7 00	
4	Improvements to Major Hospitals	No	8	55 50	
5	Construction of quarters	No	57	21 40	
6.	Leprosy Hospitals and Clinics	Additional Beds	820	29 00	
7.	T B Hospitals and Clinics	Clinics	1		
	(a) Increase in bed strength in T B Isolation Wards	Additional Beds	630	21 88	Centrally Sponsored Scheme, Central Share being Rs 7 87 lakhs
	(b) T B Clinics	Clinics	11	22 50	
	(c) Increase of Bed strength in T B Hospitals	Additional Beds	804	44 68	
8	Improvement to Taluk Head-quarters, Hospitals	Hospitals	15	28 90	
9	Subsidiary Centre for Leprosy	Centres	11	23 05	
10	Improvement to Mental Hospital Kozhikode			5 00	
11	Opening of Dental Clinics	Clinics	5	3.00	
12	Opening of V D Clinics			5 00	

No.	Item	Unit	Target	Amount	Remarks
13.	Provincialisation of Doctors in L F and Municipal Institutions	Doctors	5	0.35	
14.	(i) Medical College, Trivandrum (ii) Medical College, Kozhikode			41 49	
15.	Integration of Public Health with Basic Course in Nursing			1 78	
16.	Post-graduate training in Public Health			3 20	Centrally Sponsored Scheme
17	Laboratary Technician's Training Scheme			0 53	
18.	Dental College			2 65	
19	Establishment of a Paediatric Centre in the Medical College			3 52	
20.	Establishment of Social and Preventive Medicine Department			0 85	
21.	Starting of Children's Home for Leprosy			1 00	
22.	Starting of Nurses Training Centre at Kozhikode			2 50	
23	Training of Refractionists and Opticians			1 30	
24.	Training of Laboratory Assistants			0 90	
25.	Training of teachers for the Medical Colleges			1 50	
26.	Construction of Isolation Blocks attached to Medical College, Hospital			1 00	
	Total—Medical			362 78	

3. Public Health

No.	Item	Unit	Target	Amount
1	Primary Health Units	Centres	90	56 73
2.	Secondary Health Units			16.95
3	Maternity — Homes	Homes	18	17 00
4	Maternity and Child Health Centres	Centres	320	28.67

Sl. No.	Name of the Scheme	Physical target		Financial target (Rs lakhs)	Remarks
		Unit	Target		
(1)	(2)	(3)	(4)	(5)	(6)
5.	Family Planning	,,	70	9 00	Centrally Sponsored Scheme Central Share being Rs 4 50 lakhs
6.	School Medical Inspection			0.50	
7.	Environmental Hygiene	Slabs (distribution)	3500	0 75	
8.	Health Education	Education Teams	1	1 50	
9.	Organisation of Women Medical Officers for M C. H. Work	M C H Organisations	4	3 23	
10.	Registration of Births and Deaths			10.21	
11.	Training Scheme for Public Health Wing				
	(a) Training of Midwives	Nos	452	6 60	
	(b) Health Visitors for Family Planning	Nos	50		
	(c) Training for Lady Doctor in D M and C W Course	Nos	4		
	(d) Refresher Course for Midwives	,,	250		
	(e) Health Visitors for General Health Work	,,	77		
12.	National Malaria Eradication	Central Unit	4	72.40	
13.	National Filaria Control	Survey Unit	2		
		Control Units	10		
14.	Public Health Administrative Staff			1 85	

No.	Scheme	Institution	Number	Amount	Remarks
15	B C G. Vaccination			8.71	Centrally Sponsored Scheme the Central Share being Rs, 0.50 lakhs
	Total—Public Health			2 4 10	
4.	**Public Health Laboratory**				
1.	**Public Health Laboratories**	District Laboratory	2	7 75	
	Total—Public Health Laboratories			7 75	
	SYSTEMS OTHER THAN MODERN MEDICINE				
5.	**Ayurveda**				
1	Opening of Hospitals and Dispensaries	District Hospital Taluk ,, Dispensaries	1 20 91	33.30	
2.	Enhancement of grant - in- aid			2 69	
3.	Development of Pharmacy	Depots	3	1 42	
4	Cultivation of Medicinal Plants			1.14	
5.	Entertainment of additional staff			2 03	
6.	Co-operative agency for manufacturing Ayurvedic drugs			5 00	
	Total—Ayurveda			45.58	

Sl No	Name of the Scheme	Physical target		Financial target	Remarks
		Unit	Target		
1	2	3	4	5	6
6.	**Ayurveda College**				
1.	Ayurveda College			19.52	Centrally Sponsored Scheme, Rs 17.10 lakhs being the Central Share
	Total—Ayurveda College			19.52	
					There is a separate Scheme "Clinical Research" working as a part of the Ayurveda College. The financial Target of the Scheme is Rs. 0.50 lakhs The Central Government will meet the whole expenditure.

7. Homeopathy

1. Homeopathy		Dispensaries	5	0 48	Centrally Sponsored Scheme. Central share Rs 0.47 lakhs.
Total—Homeopathy				0.48	

8. Rural Water Supply.

				lakhs	
1 National Water Supply and Sanitation Project	.	.		8.57	
2 Sanitation in Coastal areas in Kuttanad	..	Latrines	10,000	15 00	
3 Rural Water Supply Schemes				44 71	
4 Investigation of Water Supply Scheme in Malabar				2 50	
5 Ottappalam Water Supply	..	.	..	3 00	
6 Palghat Water Supply	..	.		40 00	
7 Kozhikode Drainage Scheme	..	.	.	20 00	
8 Provision to meet excess cost		..	..	12 00	
9 Tools and Plant	..	..		27 00	

Sl. No	Name of the Scheme	Physical target		Financial target	Remarks
		Unit	Target		
1	2	3	4	5	6
				(Rs lakhs)	
10	Public Health Engineering Staff	..	..	4·75	
	Total—Rural Water Supply	..	.	177·53	
9.	**Housing.**				
1	Industrial Housing				
2	Low Income Group Housing Scheme	Houses	1324	51 00	
	(a) Low Income Group Housing				
	(b) Co-operative Housing Societies	,,	1161	58 63	
	(c) Houses for employees of Local Bodies drawing Rs 100 or less p m.			8 20	
	(d) poor Housing	,,	152	5 85	
	(e) Settlement Scheme	,,	1000	20 80	
3	Plantation Labour Housing Scheme	Settlers	5000	36 52	
4	Slum Clearance		..	10 00	
				14 32	Centrally sponsored Scheme
5	Village Housing Project Scheme	Houses	2400	1 21	Centrally sponsored Scheme the Central share being Rs.40 lakhs
	Total—Housing			206 53	

	Item	Unit	Quantity	Amount
10	**Harijan Welfare.**			
A	Welfare of Scheduled Tribes			
1	Education (a) Educational Concession to Tribal Students	Nos	2350	11.37
	(b) Maintenance of Tribal Schools	,,	38	
	(c) New Schools	,,	15	
	(d) Mid-day meals to Students	,,	500	
	(e) Boarding grants to Students	,,	600	
2	Medical and Public Health	Mobile Medical Unit	2	3 53
3	Model Welfare Centres New Centres	Nos	26	3 10
4	Land and Settlement including Housing and Common Building	Houses	961	14.98
		Families	970	
5	Forest Co-operatives	Societies	18	1.77
		Work Centres	2	
6	Administration		.	2 05
B	Welfare of Scheduled Castes			
1	Education (a) Maintenance of Schools	Nos	129	82 00
	(b) Maintenance of Hostels	,,	3	
	(c) Scholarships	,,	1461867	
	(d) Boarding grants	,,	3987	
2	Eradication of Untouchability			
	(a) Maintenance of Propaganda Unit	Nos	1	18.88
	(b) Cottage Industry Centres	,,	7	
	(c) Posters	,,	76900	
	(d) Rewards for meritorious service	,,	120	
3	Housing	Houses	2294	22 94

Sl No	Name of the Scheme	Physical target		Financial target	Remarks
		Unit	Target		
1	2	3	4	5	6
				(Rs lakhs)	
4	Public Health	Wells	270	8 03	
		Latrines	190		
		Burial grounds	45		
		Health Visitors	16		
		Acquisition of Land (acres)	1036		
		Settlement of families	4507		
5	Agriculture and Rural Development			2 66	
6	Cosmopoliton Hostels		.	5.00	
7	Contingencies		..	0 30	
8	Miscellaneous		.	0 26	
9	Administration		.	2 72	
	WELFARE OF OTHER BACKWARD CLASSES				
1	Education (a) Scholarship to Students	Nos	2500	40 86	
	(b) Boarding grants	,,	1950		
2	Miscellaneous		..	0.11	
	Total—Harijan Welfare			220 56	

11. **Social Welfare Board.**

1 Social Welfare Extension Projects	Projects	28	9 76	The Project, being Worked by the State Social Welfare Board the State's share alone is included in the Plan
Total—Social Welfare Extension Project .		..	9 76	
12. Social and Moral Hygiene and Aftercare programmes.				
I. Aftercare Programmes.				
1 Aftercare Home	Nos.	1	2 35	Centrally Sponsored Scheme, the Central Share being 50 per cent
2 Rescue Home				
3 Aftercare Shelters	,,	1	2.35	do.
4 Rescue Shelters	,,	3	1.65	do.
5 Aftercare Home for men discharged from non-correctional Institutions	,,	6	3.16	do
II. Care Programmes.	,,	1	1 34	do
1 Care Homes for disabled Children				
2 Remand Homes	,,	2	1.10	
3 Borstal School	,,	6	1.32	
4 Probation Service .	,,	1	2.00	
			4 60	Eligible for Central assistance of Rs. 4.56 lakhs
5 Juvenile Courts				
6 Children's Clubs and Parks .	,,	8	0.38	
.	,,	8	0 48	Eligible for Central assistance

Sl. No.	Name of the Scheme *	Physical target		Financial target	Remarks
		Unit	Target		
1	2	3	4	5	6
				(Rs lakhs)	
7	Shelters for Waifs and Strays	.	..		
	Total—Social and Moral Hygiene and Aftercare Programmes			20 73	
13.	**National Employment Service.**				
1	Expansion of Employment Exchanges			2 21	
2	Collection of Employment Market Information			0 82	
3	Establishment of Youth Employment Service			0 31	
4	Employment Counselling		.	0 10	
	Total—National Employment Service	.		3 44	Represents only State's share, being Centrally Sponsored Scheme.
14	**Industrial Training Centres** (Craftsmen Training Scheme)				
1	**Industrial Training Centres**				
	(i) Industrial Training Institute, Trivandrum	Additional Seats	512	27 20	Centrally Sponsored Scheme, the Central share being Rs. 40.80 lakhs.
	(ii) Industrial Training Institute, Chalakudy	,,	400		
	(iii) Industrial Training Institute, Cannanore (New)	Seats	400		
	(iv) Apprenticeship Training Scheme	.	.		
	(v) Evening Classes	..	.		

Item	Unit	Quantity	Amount	Remarks
Total—Industrial Training Centres			27 20	
15 **Employees State Insurance**				
1 Employees State Insurance Scheme			11 80	Share of E S I.C. Rs 63 30 lakhs
Total			11 80	
Total V—Social Services			2381 18	
VI. MISCELLANEOUS				
1 PLANNING STATISTICS				
1 Planning Statistics			9 50	
2 Construction of Indices of Parity between prices received and paid by farmers			1 08	
3 Purchase of Tabulator for the mechanical Tabulation Unit	Tabulator	1	1 23	
4 Unit for Administrative Intelligence	State Statistical Bureau	1	0 50	
Total—Planning Statistics			12 31	
2 PUBLICITY				
2 Purchase and distribution of Community Listening Sets	Receiving Sets	1000	1 70	Centrally Sponsored Scheme, Central share is also Rs 1 70 lakhs.
2 Production of films	Documentary films	3	0 50	
3 Provision for Mobile Vans & Motor Boats		.	3 43	
4 District Publicity Offices	Dist Offices	One each at the Dist. Hd Qrs except Tvm	2 18	

3-1305

Sl. No.	Name of the Scheme	Physical target		Financial target	Remarks
		Unit	Target		
1	2	3	4	5	6
				(Rs lakhs)	
5	Purchase of Publicity literature			0.50	
6	Publicity through Exhibition			0 38	
7	Publicity through Press Advertisement			0 25	
8	Organisation of Field Publicity			0 50	
9	Cultural Development through Song and Drama			0 40	
	Total—Publicity ..	..	..	9 84	
3	LOCAL BODIES AND URBAN DEVELOPMENT				
1	Town Planning		.	2 85	
2	Town Improvement			71 80	
	Total—Local Bodies and Urban Development			74 65	
4	MUSEUMS AND ZOOS.				
1	Construction of Building for the Natural History Museum	Building	1	1 25	Centrally sponsored Scheme for which an equal amount of Rs 1 25 lakhs as Central share, is available

	Unit	Target	Amount	Remarks
2 Construction of an Auditorium	Auditorium	1	0 50	
3 Remodelling of the Museum Building and Construction of Residential Quarters		.	1 25	
Total—Museums and Zoos			3.00	
5 ANTI-SEA EROSION.				
1 Anti-Sea Erosion	Miles	19 3/16	185.00	
6 PLANNING ADMINISTRATION				
1 Planning Administration .			2 39	
Total—Planning Administration			2 39	
Total VI—Miscellaneous			287 19	
Grand Total (State Sector)	.	.	8700 71	
CENTRAL SECTOR SCHEMES				
1 Local Development Works .		.		Financial Target not finally fixed
2 Minor Ports ..	Ports	9	48 16	
3 Inland Water Transport			43 00	
4 Flood Control		..	100.00	
5 Urban Water Supply and Drainage Schemes				
1 Trichur Water Supply Scheme				
2 Ernakulam Mattancherry Water Supply Scheme				
3 Quilon Water Supply Scheme				The financial targets have not been fixed
4. Kottayam Water Supply Scheme				
5. Ernakulam Mattancherry Drainage Scheme		.	.	
6 Trivandrum Drainage Scheme Block B.		.	..	
7 Khadi and Village Industries				

APPENDIX II.

BASIC STATISTICS OF KERALA.

I. KERALA AT A GLANCE

Location

i North latitudes :—Between 8°-18' and 12°-48'
ii East longitudes —Between 74°-52' and 77°-22'

Area —14992 sq miles (i e 95,94,686 acres-)

Population —(1951) 1,35,51,529

I	(i)	Males (49 31 per cent)	66,82,861
	(ii)	Females (50 69 per cent)	68,68,668
B	(i)	Rural (86 8 per cent)	1,17,66,592
	(ii)	Urban (13 2 per cent)	17,84,937
C	(i)	Agricultural (53 6 per cent)	72,70,161
	(ii)	Non-agricultural (46 4 per cent)	62,81,368
D	(i)	Literate (40 4 per cent)	54,73,765
	(ii)	Illiterate (59 6 per cent)	80,77,764

Density of population 904 persons/sq mile
Percentage of variation (1941 51) + 22 82 per cent
Population (estimated for 1957) 149.78 (in lakhs)

Capital of the State	*Trivandrum*
Number of Districts	9
Number of Taluks	55
Number of Villages	4615
Number of Towns	88
Number of Municipalities	27
Number of Panchayaths	897
Strength of Legislative Assembly .	127
(i) Elected	126
(ii) Nominated .	1
Number of members returned from the State to the Lok Sabha	18
Number of members returned from the State to Rajya Sabha ..	9
Net area sown (1955-56) ..	44,76,877 acres
Forest area	24,32,644 acres
Total cropped area ..	54,65,424 acres
(i) Area under Food Crops (69 57 per cent)	38,02,247 acres
(ii) Area under Non-food crops (30.43 per cent)	16,63,177 acres
Net irrigated area (1956) .	8,11,063 acres
Total value of Agricultural production (1955-56) .	Rs 180 crores
Total Live-stock population (1956)	41,68,23
Total Poultry	67,95,045

Number of Schools (1955-56)

(i) Travancore-Cochin	6,245
(ii) Malabar	4,392

Total number of School-sutudents (1955-56)

(i) Travancore-Cochin	19,93,087
(ii) Malabar	7,79,324

Number of Colleges (1956 57)	69
(i) General	50
(ii) Professional	19
Total number of College-students	40,100
Total number of Registered Factories (1956)	1,388

Capacity of and electricity generated by the main Hydro-electric Projects —

Name of the Hydro-electric project	*Capacity*	*Electricity generated 1956-57*
(i) Pallivasal	37,500 K W	22,76,83,000(K.W H.)
(ii) Shengulam	48,000 K W	13,01,13,000 ,,
(iii) Peringalkuthu	16,000 K W	57,49,600 ,,

Road Mileage (1955-56) 10,739 miles

2 District-wise Population of Kerala

District	*Area (sq miles)*	*population (1951)*
Trivandrum	846 3	1327812
Quilon	1981 9	1484783
Alleppey	705 3	1514105
Kottayam	1998 6	1326489
Ernakulam	1558 5	1530143
Trichur	1147 8	1362772
Palghat	1971.7	1565167
Kozhikode	2555 0	2065177
Cannanore	2226 5	1375081
	14991.6	13551529

3. A. Population Estimates for Kerala State (District-wise)

Districts	1951 (*Census*) *	1956	1957	1958
Trivandrum	13,27,812	14,54,000	14,81,000	15,08,000
Quilon	14,84,783	16,26,000	16,56,000	16,86,000
Alleppey	15,14,105	16,58,000	16,89,000	17,20,000
Kottayam	13,26,489	14,53,000	14,79,000	15,07,000
Ernakulam	15,30,143	16,76,000	17,07,000	17,38,000
Trichur	13,62,772	14,93,000	15,20,000	15,48,000
Palghat	15,65,167	16,79,000	17 03,000	17 27,000
Kozhikode	20,65,177	12,16,000	22,47,000	22,79,000
Cannanore	13,75,081	14,75,000	14,96,000	15,17,000
Total	1,35,51,529	1,47,30,000	14,9,78,000	1,52,30,000

3 B Age Distribution of Population in Kerala State

Age group	*No of persons (in lakhs)*	*Percentage to total*
All ages	150 00	100 00
Below 5 years	21 45	14 30
5—15 years	36 45	24 30
15—25 ,,	30 75	20 50
25—35 ,,	21 15	14 10
35—55 ,,	28.05	18 70
Above 55 years	12 15	8 10

4 A Birth and Death rates—Kerala

Year	*Birth rate*	*Death rate*	*Infant mortality rate* *	*Maternal death rate*+
1951 (T C)	23 68	6 70	45 03	3 10
1952 ,,	23 72	6 12	41 41	2 60
1953 ,,	22 39	6 52	39 44	2 76
1954 ,,	19.25	5 83	37.56	2 76
1955 ,,	22 39	6 29	39 99	2 16
1956 (Kerala)	22 95	7 40	50 70	2.90

* per thousand population

+ per thousand births

4 B. Death according to Causes in Kerala State from 1951 to '56

Disease	1951	1952	1953	1954	1955	1956
Total	62192	57860	62753	57109	62785	108894
Cholera	201	.	1275	128		1
Small-pox	484	447	522	695	31	302
Fevers (including Malaria)	12152	10565	9961	8905	10476	12070
Dysentery and Diarrhoea	3636	3154	4112	2816	3548	4928
Respiratory diseases (including T B)	7742	7097	6710	6143	6477	10124
Injuries and Suicides	1141	1081	1127	1042	539	1945
Maternal death	685	590	602	526	489	992
Others	36151	34926	38444	36854	41225	78532

5 Major towns in the State

Area, Population, Density and other details concerning the Municipal towns having Population above 25,000

	Density Sq mile Municipal towns	Area in sq miles	Population (1951 Census)	Density Sq. mile	Number of dwelling houses	Average number of inmates per house
1	Trivandrum	17.00	186,931	10,996	25,232	7.41
2.	Quilon	6.15	66,126	10,752	10,506	6 29
3	Alleppey	12.50	116,278	9,302	17,318	6'71
4	Kottayam	6.25	44,204	7,073	6,449	6 85
5	Changanacherry	5 50	36,289	6,598	5,024	7.22
6	Mattancherry	2 69	73,904	27,474	8,753	8 44
7	Ernakulam	3 27	62,283	19,047	7,905	7 88
8	Trichur	4 78	69,515	14,543	9,621	7 23
9.	Palghat	10.27	69,504	6,768	11,464	6.06
10.	Kozhikode	11 18	158,724	14,197	25,799	6 15
11.	Cannanore	4.88	42,431	8,695	6,352	6 68
12.	Tellicherry	3 00	40,040	13,347	5,266	7.60
13	Fort Cochin	1.01	29,881	29,585	5,228	5.72

6. Distribution of population in Kerala according to Religion.

Religion	*Total*	*Males*	*Females*
All Religions	135,51,529	66,82,861	68,68,668
Hindus	83,60,596	41,05,891	42,54,705
Muslims	22,02,774	10,80,239	11,22,535
Christians	29,35,385	14,68,200	14,67,185
Sikhs	308	279	29
Others	52,466	28,252	24,214

7 Population of Scheduled Castes and Scheduled Tribes in Kerala State according to 1951 Census

DISTRICT	*Scheduled Castes*			*Scheduled Tribes*		
	Total	*Male*	*Female*	*Total*	*Male*	*Female*
Trivandrum	1,05,457	51,666	53,791	6,522	3,476	3,046
Quilon	3,11,182	1,55,742	1,55,440	2,797	1,435	1,362
Kottayam	1,53,018	76,655	76,363	11,106	5,625	5,481
Trichur	2,73,665	1,33,103	1,40,562	25,18	1,631	887
Palghat	1,89,665	93,224	96,441	3,054	1,584	1,470
Kozhikode	1,58,342	77,881	80,461	30,126	15,841	14,285
Cannanore	60,401	29,754	30,647	17,933	94,66	8,467
Total	12,51,730	6,18,025	6,33,705	74,056	39,058	34,998

8. Distribution of population in Kerala State according to mother tongue (Compiled from 1951 census figures)

District/Region/Taluk.	Sex.	Mother Tongue.								
		Malayalam	*Tamil.*	*Konkani*	*Kanarese*	*Telugu.*	*Marathi.*	*Gugarathi.*	*Hindi.*	*Others.*
Kerala State	Persons	1,26,65,626	5,92,968	67,688	47,468	43,576	20,203	6,036	5,920	1,02,044
	Males	62,37,617	2,98,871	33,531	22,260	22,040	10,110	3,137	3,303	51,992
	Females	64,28,009	2,94,097	34,157	25,208	21,536	10,093	2,899	2,617	50,052
Trivandrum District	Male	5,77,076	79,510	130	178	1,168	113	214	544	1,731
	Female	5,80,077	83,143	174	142	1,190	91	174	459	1,698
Quilon District	Male	14,19,739	48,821	6,284	138	1,471	122	633	361	1,730
	Female	14,33,220	45,726	6,589	113	1,145	157	370	327	1,979
Kottayam District	Male	8,31,579	64,334	947	476	2,859	37	9	150	1,891
	Female	8,15,112	60,651	819	398	2,762	16	6	86	1,639
Trichur District	Male	10,52,537	44,079	15,154	2,133	5,465	1,623	941	1,473	8,607
	Female	11,03,954	46,260	15,501	2,064	5,962	1,674	1,604	961	5,648
Malabar Region	Male	22,20,786	61,759	2,180	5,573	10,897	759	1,334	755	3,634
	Female	23,52,774	57,977	2,003	8,409	10,320	715	742	770	2,963
Kasargode Taluk	Male	1,35,900	368	8,836	13,762	180	7,456	6	20	34,399
	Female	1,42,872	340	9,071	14,082	157	7,440	3	14	36,125

9. **Percentage distribution of families according to income in Kerala State (1955-56).**

Annual family income Rs.	*Percentage of families.*
All Income	100
Below Rs 600	51
600—1,200	34
1,200—1,800	8
1,800—3,000	4
Above Rs 3,000	3

10. **Occupational Distribution of Population in Kerala.**

Livelihood class.	*Number of persons in lakhs.*						*Percentage to total population.*
	Males		*Females*		*Total.*		
	Self Supporting	*Total Persons*	*Self Supporting*	*Total Persons*	*Self Supporting*	*Total Persons*	
All Classes	31 89	73.98	9.49	76 02	41.38	150 00	100.00
I. Agricultural	15 81	39 37	5 18	41.03	20 99	80.40	53.60
(i) Cultivation of owned land	5.26	14.00	1.27	14.40	6.53	28.40	18,93
(ii) Cultivation of unowned land	3.22	9 00	0 56	9 12	3.78	18.12	12,08
(iii) Agricultural labour	6 99	15.35	3.02	16.24	10 01	31.59	21,06
(iv) Agricultural Rentiers; pensioners	0 34	1 02	0 33	1.28	0.67	2 30	1.53
II. Non-agricultural	16 08	34 60	4 31	35.00	20 39	69.60	46.40
(i) Production other than cultivation	6.99	14 00	2.14	14.25	9.13	28 25	18,83
(ii) Commerce	2.54	5.96	0.19	5.70	2.73	11.66	7.77
(iii) Transport	1.20	2.45	0,06	2 22	1.26	4.67	3.11
(iv) Other Services	5.35	12,20	1.92	12.82	7.27	25.02	16.68

11. Index numbers of prices received by farmers— Travancore-Cochin State.

(Base August, 1939)

Year	1st Quarter	2nd Quarter	3rd Quarter.	4th Quarter
1952	689	644	676	701
1953	747	791	758	747
1954	745	600	600	575
1955	527	508	528	524
1956	574	645		

12 Index numbers of parity between prices received and paid by the farmers

TRAVANCORE-COCHIN STATE

Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
1952	154	157	170	176
1953	178	184	176	177
1954	183	172	156	154
1955	146	144	147	142
1956	154	165		

13 Land utilisation—1955-56—Kerala State

Details of Utilisation	Area in thousand Acres	Percentage of total area
According to professional survey	9,595	
Total (according to Village papers)	9,412	
Forests	24,33	25 8
Barren & uncultivable land	497	5 3
Land put to non-agricultural uses	471	5 0
Cultivable waste lands	406	4 3
Permanent pastures and grazing lands	116	1 2
Land under miscellaneous tree crops	508	5.4
Current fallow	140	1 5
Other fallows	364	3 9
Net area sown	4,477	47 6
Area sown more than once	989	10 5
Total cropped area	5,466	58 1

14. Irrigation

AREA IRRIGATED FROM DIFFERENT SOURCES IN KERALA STATE

Source.	*Area irrigated at the commencement of the first Five Year Plan (51-52) Acres.*	*Area at the end of the first Five Year Plan (55-56) Acres*	*Percentage of total irrigated area*	*Percentage of total cultivated area*
Total	743,388	811,063	100.0	18 1
Government canals	317,674	327,671	40 4	7.3
Private canals	68,074	68,113	8.4	1.5
Tanks	72,286	77,400	9.5	1 7
Wells	25,726	28,499	3 6	0 6
Other Sources	259,628	309,380	38 1	7.0

15 Area under principal crops, average yield per acre, total production and value (Kerala) for 1955-56.

Name of Crop	*Area (1000 acres)*	*Average Yield per acre (lbs)*	*Production in 1000 tons*	*Value (In Crores of Rs)*
Paddy	1,954	1,557	1,358	41 4
Pulses	111	343	17	0.4
Tapioca	558	6,298	1,569	7 8
Bananas	116	6,005	311	8.5
Sugarcane	18	40,693	327	1 3
Pepper	214	283	27	7 1
Ginger	26	1,120	13	2 8
Cardamom	69	32	1	3.0
Arecanut	144	45,000 Nuts	648*	9.9
Cashewnut	93	1,349	56	3.8
Cocoanut	1,107	2,800 Nuts	310*	49.4
Groundnut	33	950	14	0 8
Rubber	160	294	21	6.8
Coffee	41	164	3	1 6
Tea	99	679	30	14 2
Total				158.8
Other Minor Crops and Fruits				21 2
				180.0

Total value of Agricultural Production 180 crores.

* In crores of Nuts.

16. Live-stock (1955-56)

KERALA STATE

	Category.	*Number in thousands.*
1.	Breeding Bulls	11
2.	Working Bullocks	553
3	Other Bullocks	38
4	Cows in Milk	396
5	Other Cows	601
6	Young Stock	911
7	Total cattle	2,510
8	Breeding He-buffaloes	4
9.	Working He-buffaloes	247
10.	Other He-buffaloes	6
11	She-buffaloes in milk	61
12	Other she-buffaloes	77
13.	Young Stock	92
14	Total buffaloes	487
15.	Sheep	98
16	Goats	956
17	Other animals (Donkeys, Pigs, etc)	117
18.	Poultry	6,795

17 Medical aid to Live-Stock—(1955-56)

KERALA STATE

Type of Institution	*Number.*
Veterinary Hospitals	40
Dispensaries	45
Artificial Insemination Centres	9
Veterinary First-aid Centres	7
Live-stock Farms	3
Poultry Farms	3
Number of Technical Staff	252

18. Colleges for General Education in Kerala State—1956-57.

Districts.	*Number of Colleges*	*Number of students*		*Number of teachers.*
		Boys	*Girls.*	
Kerala State	50	27,110	9,504	1,970
Trivandrum	7	5,017	2,262	392
Quilon	8	5,834	2,152	370
Kottayam	9	5,231	1,833	342
Trichur	13	6,565	2,396	510
Palghat	3	1,919	271	152
Kozhikode	8	2,013	442	165
Cannanore	2	531	148	39

19. **Colleges for Professional Education in Kerala State—1956-57.**

Districts.	Number of Colleges.	Number of Students		Number of teachers.
		Boys.	Girls.	
Kerala State	19	2,938	548	347
Trivandrum	10	1,704	303	227
Quilon	.			.
Kottayam	2	141	159	18
Trichur	6	1,030	51	85
Palghat		.	..	.
Kozhikode	1	63	35	17
Cannanore			.	.

20A. **School Education in Travancore-Cochin State** (1955-56)

Type of Institution	Number of Institutions	Number of pupils.		Number of teachers	
		Boys.	Girls.	Men.	Women.
Total	6,245	10,69,694	9,23,393	31,307	19,789
High/Higher Secondary	614	2,02,312	1,60,240	10,557	5,716
Middle/Senior Basic	922	1,07,018	76,422	4,815	2,447
Primary/Junior Basic	4,267	7,45,433	6,75,319	15,177	11,329
Nursery	10	473	492		49
Schools for Professional education	341	10,737	9,264	628	184
Schools for special education	91	3,721	1,656	130	64

20B. **School education in Malabar Region** (1955-56)

Type of Institution	Number of Institutions	Number of pupils		Number of teachers	
		Boys.	Girls.	Men	Women
Total	4,392	4,46,498	3,32,826	20,156	8,298
High Schools	130	47,861	22,317	2,114	852
Senior Basic	84	16,589	10,690	749	344
Middle	214	37,506	28,595	1,658	1,096
Junior Basic/Basic primary	340	29,488	23,712	1,253	548
Primary	3,286	2,98,440	2,44,828	14,377	5,440
Nursery	2	62	58	5	18
Schools for professional education	31	3,476	1,673	*	*
Schools for special education	305	13,076	953	*	*

* Figures not available.

21. Registered Factories in Kerala State—1956.

Sl No (1)	Type of Factory (2)	Number of Factories. (3)
1	Canning and preservation of fruits and vegetables	2
2	Canning and preservation of fish	3
3	Rice mills	75
4	Sugar factory	1
5	Manufacture of sugar confectionery cocoa and chocolate	1
6	Manufacture of edible oils	58
7	Hydrogenated oil industry	1
8	Tea factories	121
9	Coffee curing works	5
10	Cashewnut industry	140
11	Starch	6
12	Bidi	52
13	Cigar	9
14	Textile mills	181 *
15	Knitting mills	9
16	Coir factories	120
17	Other Textile works	1
18	Umbrellas making	15
19	Saw mills	68
20	Plywood	13
21	General wood works	2
22	Boxes and packing cases	8
23	Other wood works including splints and veneers	54
24	Wooden fixtures and furniture	14
25	Paper	1
26	Printing and book binding	78
27	Tyre manufacture	1
28	Other rubber works	56
29	Heavy chemicals	2
30	Other chemical works	3
31	Vegetables and animal oils and fats	1
32	Fine and pharmaceutical chemicals	7
33	Matches	12
34	Soap	3
35	Miscellaneous chemical works	4
36	Petroleum	5
37	Petroleum pumping, filling and storage	2
38	Bricks and tiles	123
39	Manufacture of glass, etc	4
40	Pottery and china clay	3
41	Cement	2
42	Forgings	3
43	Rough castings	1
44	Metal containers and steel trunks	9
45	Cutlery, locks, etc.	4

Sl. No. (1)	Type of Factory (2)	Number of Factories. (3)
46	Type founding	2
47	Agricultural implements	3
48	Machine tools and wood-working tools	2
49	General and jobbing engineering	25
50	Telegraph and telephone workshop	1
51	Other appliances	2
52	Marine engine works	1
53	Repair of motor vehicles	53
54	Other transport equipment	1
55	Jewellery	1
56	Mints	1
57	Pen and pencil making	2
58	Brushes	4
59	Wrapping, packing, filling, etc.	1
60	Other manufacturing works	2
61	Electric light and power	2
62	Laundries	2

* This is inclusive of 13 power mills (cotton).

22 Employment Exchange—Kerala State

A *Number of Registrations and Placings during 1956*

Centres and nature of Service	A-B Standard		Others	
	Men	Women	Men	Women
Total for Kerala State—				
1 Number of Registrations	230	25	38,809	8,885
2. Number of placings	20	3	8,129	894
Sub-Regional Employment Exchange, Trivandrum —				
1. Number of Registrations	83	12	15,651	5,522
2 Number of Placings	1	1	2,745	333
District Employment Exchange, Ernakulam —				
1 Number of Registrations	126	12	5,882	1,161
2 Number of Placings	13	2	1,468	135
District Employment Exchange, Willington Island.—				
1. Number of Registrations	13	.	7,236	498
2. Number of Placings	5	.	2,122	15
Sub-Regional Employment Exchange, Kozhikode —				
1. Number of Registrations	8	1	10,040	1,704
2 Number of Placings	1	.	1,794	411

NOTE —1 Number of Registrations includes the number of re-registrations also.
2. A. B Standard means candidates of higher technical and administration standard.

22 Employment Exchange—Kerala.

B Occupational classification of the live register as on 31st December, 1955 and 31st December, 1956

Group of Registration	Total for Kerala State.		Sub-Regional Employment Exchange, Trivandrum		District Employment Exchange, Ernakulam		District Employment Exchange, Willington Island		Sub-Regional Employment Exchange, Kozhikode	
	31-12-55	31-12-56	31-12-55	31-12-56	31-12-55	31-12-56	31-12-55	31-12-56	31-12-55	31-12-56
TOTAL ..	39,280	38,988	15,617	18,631	5,954	5,279	8,914	6,568	8,795	8,510
1 Industrial supervisory workers	154	446	61	321	51	68	21	25	21	32
2. Skilled and semi-skilled operative technicians	1,898	1,734	288	495	296	202	1,036	590	278	447
3 Clerical workers	13,938	17,038	5,359	7,494	2,154	2,778	3,131	2,877	3,294	3,889
4 Educational workers .	1,807	2,010	372	340	225	208	2	2	1,208	1,460
5. Domestic Service workers .	589	1,016	288	655	58	64	69	79	174	218
6. Unskilled workers	19,210	15,299	8,475	8,701	2,966	1,716	4,372	2,772	3,397	2,110
7. Others	1,684	1,445	774	625	204	243	283	223	423	354

23. Number of Post Offices, Public Call Offices, Telegraph Offices, Etc. (1956-57) in Kerala State

Details of Office, etc.	*Kerala State*	*Postal Division*						
		Trivandrum	*Quilon*	*Kottayam*	*Trichur*	*Palghat*	*Kozhikode & Cannanore*	*Kasargod Taluk*
I. Total number of Post Offices	2,270	148	357	258	433	407	564	103
1. Head Offices ..	9	1	2	1	2	1	2	.
2. Sub Offices	482	53	93	64	97	74	87	14
3. Branch Offices	1,779	94	262	193	334	332	475	89
II. Number of Public Call Offices ..	191	25	35	33	36	23	33	6
III. Number of Telegraph Offices .	215	14	40	24	41	32	56	8
IV. Number of Broadcasting Receiver Licences issued .	19,964	4,500	3,800	1,151	4,968	1,559	3,631	355
V. Number of letter boxes	5,882	361	855	649	1,302	1,180	1,279	256

24 **Statement showing the quantum of Electricity generated and sales by class of consumers in Kerala (1957)**
(Kilo watt—Hours in Million).

Month	Units generated		Total Units sold		Domestic		Commercial		Industrial		Public Utilities	
	Kerala	India	Kerala	India	Kerala	India	Kerala	India	Kerala	India	Kerala	India
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
January ..	33 715	868 666	25 569	711 694	0 235	83 210	0 239	47 250	21 894	480 423	3 201	100 811
February ..	*	811 043	*	677 717	*	79.078	*	45 415	*	451 487	*	101 737
March ..	33 244	874 615	27 041	716 499	2 209	80 810	0 238	47 304	21 459	478 482	3 135	109.903
April	31 088	901 369	25 623	734 522	2 125	83 302	0 235	48 141	20 299	492 564	2 964	110.515
May .				.		.	.	.	..	.	..	..
June	34 452	898 354	28 175	726 086	2 310	85 689	0 252	49 689	22 345	475 499	3 278	115 209
July	34 468	928 322	28 165	743 902	2 298	86 129	0 250	48 953	22 340	499 436	3 278	109 384
August	35 986	922 971	29.310	730 962	2 355	86.491	0 253	48 753	23 284	486 605	3 418	109 113
September	36 126	924 273	29 502	739 314	2 372	88 182	0 263	46 233	23 421	496 346	3 446	107.953
October	37.611	917 519	30 571	731 290	2.435	90 307	0 266	47 002	24 233	486 432	3 577	107.569
November	37 825	930 176	30.666	740 472	2 440	89 048	0 266	47.561	24 370	499 179	3 590	92.779
December	39.357	958 719	31 863	779 662	2 528	91 394	0.277	49 301	25 320	518 952	3 738	120 015

* Not available.

25. Statistics of road mileage 1955-56—Kerala

	Category of Road.		Mileage.	Percentage to total Mileage.	Mileage per Sq. mile of the area of the State.
1.	All categories	..	10,739	100.0	0.72
2.	National Highways		276	2.6	0 02
3.	Provincial Highways	.	1,156	10.8	0.08
4	District Roads	..	3,873	36.0	0.26
5.	Village Roads		5,434	50.6	0 36

26, Regional & per Capita Income for Kerala—1955-56

(at current prices)

Sl. No	Industrial Origin.		National income (Rs. crores)	Per Capita income (Rs.)
	Total	.	318.1	217.9
1	Agriculture	..	166.0	113.7
2	Animal Husbandry and ancillary activities		7.1	4.9
3	Forestry	.	2.5	1 7
4	Fishery	.	2.3	1 6
5	Mining	..	0.2	0.1
6	Factory establishments	.	8.9	6 1
7	Small enterprises		11.2	7.7
8	Communication	..	..	.
9	Railways		..	.
10	Other commerce and transport	.	57.5	39 4
11	Organised Banks and Insurance	..	3.1	2.1
12	Professions, arts and domestic service		26 7	18 3
13	Government service	..	14.6	10.0
14	House property	..	18.0	12.

27. Sowing, Harvesting and Peak Marketing Seasons of Principal Crops (Kerala)

		Sowing	*Harvesting*	*Peak Marketing*
Rice, Autumn		Apr to June	Aug to Oct	Sept. to Oct
Winter		Aug to Oct.	Dec to Feb.	Jan. to Feb.
Summer		Nov to Dec Jan to March	Feb to March April to May	March to April May to Jun
Ragi		April to Jun Sept to Oct	Aug to Sept. Dec to Jan	Aug to Sept. Dec to Jan
Small millets (Samai)	Kharif Rabi	May Sept	August December	August December
Red gram		June-July	Aug - Sept	Sept -Oct
Horsegram		Sept -Oct	Dec.-Jan	Jan -Feb
Greengram		May-June	Aug -Sept	Sept -Oct
Blackgram		June-July	Aug -Oct	Oct
Other pulses		May-June- Oct	Aug -Sept Dec -Jan	Aug -Sept Jan
Sugarcane		March-April Dec to Feb	Jan -Feb Oct. to Dec	Feb -March Nov -Dec
Ginger (raw)		April to May	Nov to Jan.	Dec to Jan.
Pepper (Black)			Nov -Dec -Jan	Dec -Jan -Feb
Sesamum		Dec -Jan Aug -Sept -Oct	March-April Dec -Jan	April-May Dec -Jan
Cotton		July-Aug -Sept	Jan -Feb -March	Jan -Feb -March
Sweet Potatoe		Jun to Aug Nov -Dec	Oct to Dec Feb -March	Oct - Dec. Feb -March
Turmeric		April to Jan	Dec to Feb	Feb.-March
Lemongrass			Jun to Sept	September
Tapioca		March to May July to Sep	Nov to Jun July to August	Dec to Feb July to August

28. RAINFALL STATISTICS

Temperature, Rainfall and Mean Relative Humidity during each month for the year 1956.

Month	Alleppey						Fort Cochin					
	Maximum Tempera-ture	Minimum Tempera-ture	Relative Humidity 8 30 I S T %	Relative Humidity 17.30 I S T %	Rainfall (inches)	No. of rainy day (0 10" or more)	Maximum Tempera-ture	Minimum Tempera-ture	Relative Humidity 8 30 I S T %	Relative Humidity 17 30 I.S.T. %	Rainfall (inches)	No of rainy days (0.10" or more-
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
January	88 3	70 8	73	71	0 50	1	85 9	75 2	65	63	0 00	0
February	88.1	72 9	73	66	1 94	3	87.1	78.7	69	65	4.44	2
March	90 2	76 9	77	73	2 29	4	88.6	80 2	75	71	0.17	1
April	90 9	77 8	78	76	8 80	9	88.8	78 2	75	73	12 35	10
May	86.9	75 6	83	77	22 17	18	85 0	76 2	84	81	24.79	20
June	83 4	73.6	91	86	31.28	30	82 7	74.1	90	85	30.30	28
July	83 2	73 2	87	84	11 80	16	81.8	74 1	84	86	11 11	17
August	83 3	74.0	89	84	10.49	16	82 2	76 5	87	86	9 67	15
September	83 3	73 8	89	84	7 91	18	82.0	77 0	85	83	9 23	21
October	83 6	74 1	87	82	25 88	19	82 9	76 3	84	83	20 60	16
November	87 0	74 4	82	75	9 57	12	86 2	76 9	77	75	9.07	12
December	88.8	71.9	71	64	0 00	0	86.6	76 0	62	64	0 10	1

28. RAINFALL STATISTICS

Temperature, Rainfall and Mean Relative Humidity during each month for the year 1956 (Contd)

Month	Kozhikode						Trivandrum					
	Maximum Tempera-ture	Minimum Tempera-ture	Relative Humidity 8.30 I S.T %	Relative Humidity 17 30 I S T %	Rainfall (inches)	No. of rainy days (0 10'' or more)	Maximum Tempera-ture	Minimum Tempera-ture	Relative Humidit 8 30 I S T %	Relative Humidit 17.30 I S.T %	Rainfall (inches)	No. of rainy days (0 10'' or more)
	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
January	88 5	70 7	77	69	0 00	0	87.9	70 1	76	61	0.81	2
February	89 5	72 6	73	67	0 00	0	88 7	71 7	74	59	0 00	0
March	91 1	77 0	76	71	1.77	1	91 0	75.5	75	65	0.71	2
April	91 8	78 5	76	71	7 08	6	91 2	77 7	76	70	5 50	5
May	87.4	75 8	82	76	19 33	17	87 1	75 6	85	73	4 73	12
June	83 2	73.5	92	85	38.36	24	83 4	73 3	91	84	12.99	20
July	82.6	73.5	91	87	20 06	22	84.4	73 3	87	75	4.40	8
August	82.9	73 9	94	85	12 79	15	84 3	73 4	89	78	4 23	9
September	83.1	74.0	90	82	6 62	16	84 9	73 3	86	76	2.53	8
October	85 3	74.5	90	81	16 78	15	84 6	73 4	86	78	6.13	13
November	87 9	74 6	82	71	7 74	10	87 1	73 5	86	78	4 69	8
December	88 8	71.0	71	64	0.09	0	88 9	72 9	76	65	1 69	2

N A.—Not Avaiable

Source Regional Meteorological Centre, Madras

Temperature, Rainfall and Mean Relative Humidity during each month for the year 1956 (*Contd.*)

Month	Palghat						Punalur					
	Maximum Tempera-ture	*Minimum Tempera-ture*	*Relative Humidity* 8 30 I.S.T. %	*Relative Humidity* 17 30 I.S.T. %	*Rainfall (inches)*	*No of rainy days (0 10" or more)*	*Maximum Tempera-ture*	*Minimum Tempera-ture*	*Relative Humidity* 8 30 I.S.T. %	*Relative Humidity* 17 30 I.S.T. %	*Rainfall (inches)*	*No. of rainy days (0.10" or more)*
	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)
January	91 3	71 0	65	40	0 93	1	N A.	N A	N A.	N A.	N A.	N.A.
February	95.0	72.1	58	28	0 00	0	N A	N.A	N A.	N A	N.A.	N.A.
March	100.8	75 7	65	32	0 00	0	N.A	N.A	N A	N A.	N.A.	N A.
April	97.8	77 0	78	62	2 71	5	95 4	74.2	83	66	8 71	10
May	88.9	74 6	82	70	4 85	11	89.1	73.9	88	73	10.17	15
June	83 2	72.5	92	85	18.29	20	84.5	72.5	93	51	18 59	22
July	81 1	71 7	91	82	17.95	22	84 8	71.4	92	73	9.56	16
August	83 9	72 9	91	78	11.30	15	85.7	71.7	93	75	9.42	17
September	84.2	72 5	87	75	3.90	14	86 5	71 4	93	72	5.30	14
October	85 0	72.6	87	80	10 53	15	86 5	70 9	89	79	17.72	17
November	88.5	73.2	79	71	4 17	8	89.0	69 4	90	75	18.33	13
December	90 0	71.4	64	44	0 00	0	91 3	65.6	81	50	0.00	0

N A —Not Available

Source Regional Meteorological Centre, Madras

29. A—No. of Government Medical Institutions as on 31-3-1957

		No. of Institutions	No. of Beds
1	Hospitals ..	46	4516
2.	Dispensaries (including 12 Public Health Centres in Malabar with 93 beds)	165	724
3	Leprosy Hospitals	2	1180
4.	T B Hospitals	1	205
5	T. B Clinics (3 attached to major Hospitals)	5	116
6	Mental Hospitals	3	709
7.	Maternity Hospitals	7	1256
8.	Eye Hospital	1	150
9	Public Health Laboratory	1	
10.	School of Nursing	2	
11.	Medical Stores	2	
			8856

(Figures given are provisional)

29. B—Number of Government Medical Institutions as on 31-3-1957

(DISTRICT-WISE)

Sl. No		Kerala		Trivandrum		Quilon		Kottayam		Trichur		Kozhikode		Palghat		Cannanore	
		No of Insti-tutions	No of Beds	No of Insti-tutions	No of Beds	No of Insti-tutions	No of Beds	No of Insti-tutions	No of Beds	No. of Insti-tutions	No of Beds	No of Insti-tutions	No of Beds	No of Insti-tutions	No. of Beds	No. of Insti-tutions	No. of Beds
1.	Hospitals	62	8132	13	2100	11	1635	6	463	17	2288	6	1032	5	325	4	89
2.	Dispensaries	165	724	25	36	41	183	30	149	35	169	7	21	18	90	9	76
	Total	.	8856		2136		1818		612		2457		1053	..	415	..	365

Figures are provisional

29, C —Grant-in-aid Institutions, Local Fund Institutions and subsidised Rural Dispensaries as on 31-3-1957

(DISTRICT-WISE)

Sl. No		KERALA		TRIVANDRUM		QUILON		KOTTAYAM		TRICHUR		KOZHIKODE		PALGHAT		CANNANORE	
		No. of Institutions	No of Beds	No of Institutions	No of Beds	No of Institutions	No of Beds	No of Institutions	No of Beds	No of Institutions	No of Beds	No of Institutions	No of Beds	No of Institutions	No of Beds	No of Institutions	No. of Beds
1	Grant-in-aid Institutions	31	1115	1	60	3	302	5	56	18	301	2	306	1	Nil	1	90
2	Local Fund Institutions	34	314	Nil		Nil		Nil		3	54	12	92	12	86	7	82
3.	Subsidised Rural dispensaries	23	Nil	Nil		Nil		Nil		1	Nil	10	Nil	6	Nil	6	Nil

(Figures given are provisional)

30 A.—Working Capital of Co-operative Societies as on 30-6-1957

Sl. No	Class of Societies	Total No of Societies	Paid up share Capital	Reserve Fund & other Funds	Deposits	Borrowings	Working Capital
1	State Co-operative Bank	1	1198010	116576	3612256	3562272	8489114
2	Central Banks	2	1721252	1039877	14935950	1844977	19542056
3	Central Land mortgage Bank	1	34000		48900	1100000	1182900
4	Cochin Land mortgage Bank	1	238450	174726	111958	3687943	4213077
5	Central non credit Societies	14	379562	697425	116025	1123100	2316112
6	Agricultural Credit Societies	2098	6677774	8774720	3732358	5099352	24284204
7	Primary Land mortgage Bank	4	95424	771	5130	1029054	1130379
8	Non-agricultural Credit Societies	371	4032126	2110309	10155292	3244492	19542219
9	Agricultural non credit Societies	711	2252111	2543130	606622	2919314	8321177
10	Non-agricultural non-credit Societies	731	1748656	1385893	715911	1193632	5044092
11	Supervising Unions	50		.		.	.
12	Institutes	3					
	TOTAL	3987	18377365	16843427	34040402	24804136	94065330

30 B—Classification of Co-operative Societies, Membership and Share Capital as on 30-6-1957

		No of Societies	Number of Members			
			Individuals	*Societies*	*total*	*Paid up Share Capital*
I.	**CENTRAL SOCIETIES**					
1	State Bank	1	1,676	1,300	2,976	11,98,010
2	District Banks	2	120	1,329	1,449	17,21,252
3	Central Land mortgage Bank	1	160	4	164	34,000
4	District Land mortgage Bank	1	5,881		5,881	2,38,450
5	Central wholesale Societies	2	776	371	1,147	2,48,380
6	Central Industrial Society	1	83	443	526	16,580
7	Milk Unions	8	5,349	70	5,419	72,302
8	Other Types	3	301	64	365	42,300
II	**AGRICULTURAL SOCIETIES**					
1	Credit-Limited	813	252,716	144	252,860	41,89,027
2	,, Unlimited	1,285	202,870		202,870	24,88,747
3	Primary Land mortgage Banks	4	4,027		4,027	95,424
4	Purchase and Sale Limited	234	36,772	55	36,827	6,48,779
5	Production and Sale Limited	246	50,345	108	50,453	11,52,792
6	,, Unlimited	10	1,206		1,206	22,587
7	Production Limited	134	16,287	8	16,290	3,09,673
8	Social Service Limited	76	9,725		9,725	1,12,320
9	Housing Limited	11	221		221	5,960
III	**NON-AGRICULTURAL SOCIETIES**					
1	Credit Limited	331	1,96,955	826	1,97,781	39,12,938
2	,, Unlimited	40	7,241		7,241	1,19,188
3	Purchase and Sale Limited	429	65,499	200	65,699	8,19,458
4	Production and Sale Limited	240	29,519	152	29,671	6,65,213
5	Production and Sale Unlimited	2	124	.	124	905
6	Production Limited	12	603		603	1,11,991
7	Social Services Limited	35	2,946		2,946	41,937
8	Housing Limited	13	1,964		1,964	1,09,152
IV	**SUPERVISING UNIONS**	50	11	2,960	2,971	
V	**INSTITUTES**	3	33	92	125	..
	Total	3,989	893,405	8,126	901,531	1,83,77,365

31. Monthly Working Class Cost of Living Index Numbers for 1957 (Base August 1939—100)

Sl No.	Centres	Jan. 1957	Feb. 1957	March 1957	April 1957	May 1957	June 1957	July 1957	August 1957	Sept. 1957	Oct. 1957	Nov. 1957	Dec. 1957	Jan. 1958
1	Trivandrum	396	392	396	402	408	410	413	408	396	404	400	404	409
2	Quilon	402	403	406	411	411	404	412	407	396	390	396	401	407
3	Punalur	410	412	415	422	430	431	427	421	427	417	423	428	432
4	Alleppey	391	400	399	409	418	416	410	408	400	395	400	406	412
5	Changanacherry	411	410	414	418	426	426	424	418	410	401	407	406	412
6	Kottayam	394	389	383	386	389	389	398	405	395	386	393	401	403
7	Alwaye	400	401	404	405	413	413	409	401	393	383	391	394	400
8	Ernakulam	399	404	407	402	411	417	414	411	406	409	405	411	413
9	Trichur	383	386	388	396	405	409	412	406	406	397	400	407	411
10	Chalakudy	398	394	397	407	416	423	426	420	408	408	407	414	421
11	Munnar	380	372	369	367	369	379	385	389	390	387	384	381	381
12	Kozhikode *	425	428	434	442	449	448	444	434	423	418	421	429	429

* (Base Average prices from July 1935 to June 1936—100)

CORRIGENDA TO SECOND FIVE YEAR PLAN, KERALA

Chapter / Appendix	Page	Para / Col.	Line / Item	For	Read
Introduction	xiv	para 31	3rd line	"Rs. 4 crores"	"a sum of Rs 4 crores"
Do.	xiv	para 31	6th line	"then"	"thus"
Do	xvi	Col 3	Item 6	"77,000"	"1,37,000"
Do.	xxi	para 37	4th item 5th item 6th item	"15 63" "39 41" "47.59"	"15.54" "39 32" "47 68"
Do.	xxii	para 40	last line	"Charges"	"charge"
Chapter I	8	para 29	first line	"as schemes"	"on schemes"
Do.	10	para 39	third line	"has"	"have"
Do.	10	para 45	third line	"has"	"have"
Do	10	para 47	fourth line	"planned was"	"are"
Do.	16	para 83	third line	"comming"	"coming"
Chapter II	23	para 20	fourth line	"First during the Five Year Plan"	"during the First Five Year Plan"
Chapter III	33	para 20	third line	"in"	"is"
Chapter IV	36	para 1	sixth line	"part"	"past"
Do	37	para 9	first line	"83"	"84"
Chapter V	40	para 10	first line	"as"	"was"
Do	41	para 13	second line	"was"	"were"
Do	41	para 14	fifth line	"home service"	"home science"
Do	42	para 18	third line	"subject"	"subjects"
Do.	43	para 25	12th line	"Rs 0 24 lakhs"	"Rs. 0·24 lakh"
Do	43	para 29	2nd line	"Rs 108 76 lakhs"	"Rs 79 85 lakhs"
Do	43	para 29	2nd line	"Of this"	"Of the total cost of Rs 79 60 lakhs for University Schemes"
Do	50	para 63	last line	"Rs. 57 40 lakhs"	"Rs 72 40 lakhs"
Do	50	para 66	1st & 2nd lines	"health education teams, one in each district of Malabar area"	"a Health Education Team in Malabar area"
Do	50	para 66	2nd & 3rd lines	"There are such teams already working in the other areas of the State"	"There is already a team working in the other areas of the State"
Do	51	para 73	1st line	"A Homeopathic College and Hospital"	"Five homeopathic dispensaries"
Do.	52	para 75	item (3)	"The increase"	"The ingress"
Do.	58	para 95	7th line	"extension of the scheme to new"	"extension of scheme to new areas"
Do.	58	para 95	8th & 9th lines	"introduction areas, of Ayurvedic treatment"	"introduction of Ayurvedic treatment"

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Chapter / Appendix	Page	Para / Col.	Line / Item	For	Read
Chapter VI	60	para 9	7th line	"for"	"of"
Chapter VII	62	para 12	8th line	"new treatment plan"	"new treatment plant"
Chapter VIII	74	para 57	2nd line	' Its'	' , its'
Do.	75	para 65	1st line	'of'	'to'
Do.	81	para 91	Kozhikode Dt /Item 4	'Constructing Ananthavoor village'	'Constructing an out-fall sluice in Ananthavoor village'
Do	82	para 91	Cannanore Dt. /Item 14	'Mundankandam in Thrikarpur village'	'Constructing a vented dam in Mundankandam in Thrikarpur village'.
Do	108	para 235	5th & 6th lines	'main scheme under the Second Five Year Plan Schemes'	'main schemes under the Second Five Year Plan'
Do.	110	para 242	4th line	'main scheme'	'main schemes'
Chapter X	146	para 78	1st & 2nd lines	'Census Report of 1950'	'Census Report of 1951'
Chapter XIV	208	Heading		'INO PORTS'	'MINOR PORTS'
Appendices	219-228		Title of statement	"Appendix II—Physical & Financial Targets"	"Appendix I—Physical & Financial Targets"
Appendix I	231		Item 2, Col 2	"Fist"	"First"
Do	do		Item 2, Col 4	"2,84,000"	"28,400"